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Soybeans: 2007 Crop Performance Results

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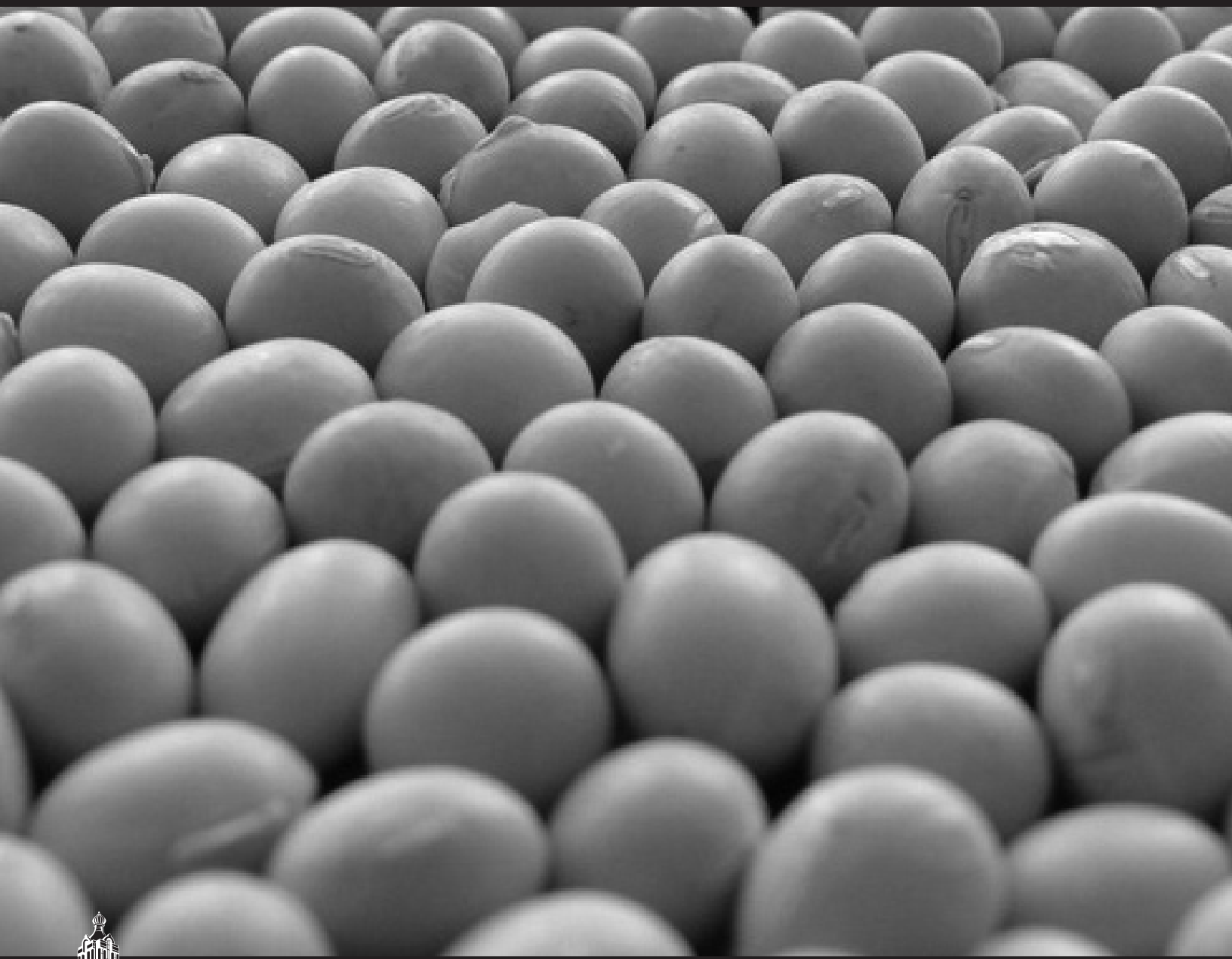
EC 775
Revised
Annually

SOYBEAN

Variety Performance Trials–2007 Results



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The crop performance trials are available at http://plantsci.sdstate.edu/varietytrials/vartrial.html

Tables for the 2007 Soybean Performance Trials

Roundup Ready™ trial results

Conventional trial results

EC 775—Precision Planted Soybeans 2007 Crop Performance Results is available electronically on the internet

http://agbiopubs.sdstate.edu/articles/EC775–07.pdf

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SOYBEAN
Variety Performance Trials–2007 Results

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Successful soybean production is greatly affected by variety selection. This publication reports the agronomic performance of entries in the 2007 South Dakota performance trials for conventional non-Roundup Ready and Roundup Ready soybean varieties. Major factors in variety selection include yield, maturity, lodging resistance, and *Phytophthora* root rot resistance.

General

Soybean varieties are classified according to maturity groups, which are then adapted to maturity zones. Maturity zones are based on day length and are therefore greatly affected by latitude. Consequently, maturity group-00 varieties are best suited to Canada and bordering regions of the U.S., while maturity group-0, group-I, and group-II varieties are suited to South Dakota. Groups III through VIII are suited to Iowa, Nebraska, and southward into Texas.

These soybean trial results are reported according to the prevalent maturity zones in South Dakota (see map below). The Roundup-Ready™ soybean variety trials were conducted in the following test zones and locations:

Northern test zone: Maturity groups-0 and -I at South Shore and Warner

Central test zone: Maturity groups-0, -I, and –II at Brookings and Bancroft

Southern test zone: Maturity groups-I and -II at Beresford and Geddes

The conventional soybean variety trials are conducted at the following SDSU affiliated research farms:

Northeast Research Farm, South Shore: Maturity groups-0 and -I

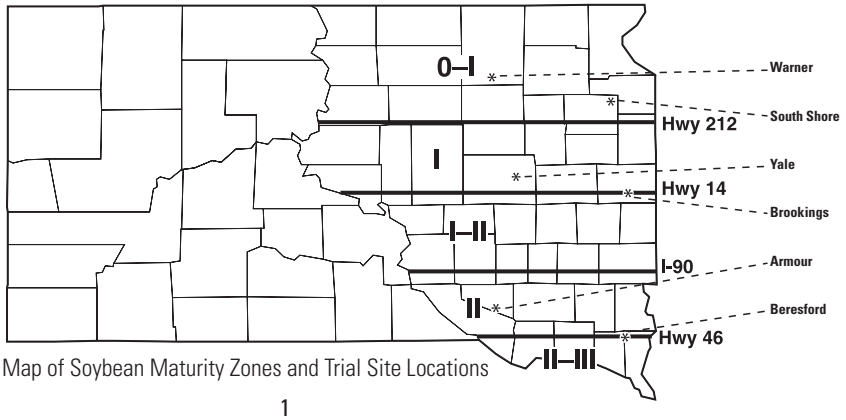
SDSU Plant Science Farm, Brookings: Maturity groups-0, -I, and –II

Southeast SD Agricultural Experiment Station, Beresford: Maturity groups-I and –II

There are transition areas where varieties of two maturity groups may perform similarly. In such cases, mitigating factors like rainfall and/or elevation may moderate the effect of latitude on maturity. In most cases, an earlier maturity group may be seeded in a zone suited to a later maturity group; this is only practical a) if seeding is delayed, or b) if reseeding following hail, or c) if double cropping.

Phytophthora root rot (PRR) is an important soybean disease in South Dakota and is often controlled or managed with the use of resistant varieties. Resistance to Phytophthora root rot is fungus-race specific. Thus, resistance to one PRR race does not always impart resistance to other races. Knowledge of the prevalent PRR races in your area is important. If you suspect you have a PRR problem, then the use of varieties with a wide range of rot resistance is strongly suggested (see discussion of *Phytophthora* under "General Test Procedures").

An alternative method of control is the use of "tolerant varieties." Tolerant varieties are not resistant to PRR in the seedling



Map of Soybean Maturity Zones and Trial Site Locations

stage. Thus, a PRR fungicide must be applied to protect them. Currently, we do not evaluate the field tolerance of varieties. Thus, field tolerance ratings are not available.

Certified seed is the best source of seed and the only way to be assured of the genetic purity of the variety seeded. In addition, inoculation of seed with the appropriate nitrogen-fixing bacterium is a good practice. Always inoculate if seeding soybeans in soils not previously cropped to soybeans. On older soybean soils there is no guarantee that beneficial bacteria will be present to naturally inoculate planted seed. Therefore, inoculation of seed at planting is an inexpensive means of increasing the percentage of plants that will fix nitrogen in the current crop year.

Yield

Yields are obtained from the South Dakota Crop Performance Testing Program (CPT). Current-year yields are included for each entry tested. In addition, two-year averages are included where varieties have been tested for two years. Yield test averages and least significant difference (LSD) values are rounded to the nearest bushel and printed at the bottom of each yield column.

The LSD value can be used to determine if varieties differ in yield per acre. For example, assume variety-A averages 30 bushels, -B averages 25 bushels, and the calculated LSD value is 4 bushels. The average difference between varieties A and B is 5 bushels. Since the average difference of 5 bushels is greater than the test LSD value of 4 bushels, the average of variety-A (30 bushels) is significantly higher than for -B (25 bushels). In contrast, if variety-A averages 28 bushels and -B averages 25 bushels, the average difference would be 3 bushels. In this case, both varieties would have a similar yield average because their difference of 3 bushels was less than the test LSD value of 4 bushels.

The LSD value can be used to identify the best-yielding variety or group of varieties. The LSD value (bottom of each yield column) is used to calculate a **minimum top yield value**. For example, assume the highest yield is 50 bushels and the LSD value is 5 bushels. The minimum top yield value is 45 bushels (50–5 = 45). All yield values higher than 45 are included in the top-yield group. However, because the yield and LSD values are rounded to the nearest whole bushel, we also include yield values of 45 bushels in our definition of minimum top yield value. Therefore, in this case, varieties with averages of 45 bushels or higher are included in the top yield group. Entries in all tables are sorted from high to low values by the variable listed with the brand/variety heading of each table. Note: Entries tested for two years may also have a top yield group value in the 2007 yield column.

Each seed company selects the appropriate maturity group trial (maturity group-0, -I, or –II) and locations for their entries. Companies generally have one or more maturity group checks for their varieties. There are, however, no standard regional or national check varieties for maturity. A late group-I variety from one company may be similar in maturity to an early group-I or an early group-II variety from another company because they use different check varieties for maturity. Therefore, this testing program does not guarantee that entries are placed in the appropriate maturity group trial. Borderline entries with maturity ratings at or near the arbitrary breaks between the late group-0s and early group-Is and between the late group-Is and early group-IIs may cross over in some test trials. It is suggested that you note the reported maturity rating of every entry you are considering. Because all entries at a location are seeded the same day, one can compare the relative difference in days to maturity among varieties tested at that location. Use caution when comparing the maturity rating of a variety over many locations. Variations in soil moisture and temperature may differ between locations, resulting in some maturity variations over locations.

The efforts of D. Doyle, SDSU Agronomy Farm; A. Heuer, NE Research Farm, South Shore; and R. Berg and staff, SE Research Farm, Beresford, in obtaining the data are gratefully acknowledged. Also, the assistance and cooperation of our farmer co-operators Allen and Inel Ryckman, Warner; Curtis Sybesma, Geddes; and Erland Weerts, Bancroft, is gratefully acknowledged.

Protein and Oil Content

The 2007 protein and oil values (adjusted to a 13% moisture basis) were determined using a calibrated FOSS TECATOR Model Infratec 1229 Grain Analyzer. Three replicates of every variety in each trial were tested. Samples of known protein and oil were tested by the SDSU Agricultural Experiment Station Biochemistry Laboratory and were used to calibrate the analyzer.

Weather and Seasonal Precipitation

Seasonal rainfall and its distribution and average temperatures at weather reporting stations nearest each test trial are reported in Table A for the period April 1 to September 30. Seasonal precipitation totals were above normal for Aberdeen (+7.77”), NE Farm (+0.98”), and Platte (+3.60”), but below normal for DeSmet (-0.56”), Brookings (-0.39”), and SE Farm (-2.91”). The greatest midseason moisture (June, July, and August) deficits were apparent at Brookings and the Beresford research farm. At these two locations, moisture deficits were greater at Beresford (-3.02”) compared to Brookings (-0.7”). At these reporting stations, average temperatures varied from about -1.0 to +4.0 degrees from normal in May to about ±2.0 from normal in August.

General Test Procedures

These procedures apply to both conventional non-Roundup Ready™ and Roundup Ready™ soybean entries, except for the chemical weed control listed in Table B. Trial locations, soil types, tillage methods, previous crops, pesticide usage, and seeding dates are indicated in Table B.

Test Procedures: A row spacing of 30 inches was used at all locations. The seeding rate was 165,000 seeds per acre for all varieties and locations. Test plots consist of 4-row plots, 20-feet long, with three replications at all locations. Soybean inoculation was accomplished by applying Nitragin brand Soybean Soil Implant down the seed tube, according to label instructions and rates, during seeding. Seeding at all locations was accomplished using a Monosem precision row crop planter; the use of this planter this year resulted in very uniform seed spacing within the seed row. The center two rows of each plot were harvested for yield.

Yield: Plots were harvested at 15% seed moisture or less. Yields were calculated on a 13% moisture content basis and expressed in bushels per acre. Harvest was accomplished using a Massey Ferguson 8XP small plot combine.

Reporting variety maturity: Variety maturity is reported as “days to maturity” (DTM). Entries are mature when 95% of the pods have turned brown. Each maturity value is obtained by 1) determining the average number of days from seeding to maturity for two replicates and 2) expressing as DTM at each location. Table DTM values are an average of four replicates (two for each

location). If data is missing at a location, it is noted in a table footnote; if data is missing at both locations (most often from early frost), the data is missing in the DTM column.

Lodging Score: Scores at maturity are based on average erectness of the main stem of plants within each variety: 1 = all plants erect, 2 = slight lodging, 3 = lodging at a 45 degree angle, 4 = severe lodging, and 5 = all plants flat.

***Phytophthora* Root Rot (PRR):** The gene resistance of each variety to PRR is supplied by each seed company (proprietary entries) or by the USDA (Uniform Soybean Tests, Northern States, public entries). A key for each type of PRR gene and the race resistance it imparts to a variety is given in Table C. Specific race resistance to PRR (reported by seed company)for a variety can be determined by noting the PRR gene in the variety index tables D (Roundup Ready™) and E (Non-Roundup Ready™) and referencing the gene back to table C to find the range of race resistance. Currently, races -1, -3, and -4 are the most common races in South Dakota.

ROUNDUP READY™ SOYBEAN VARIETY PERFORMANCE TRIAL RESULTS

Note: Yields are reported as 2007 averages or 2-yr averages (2006-07)

NORTHERN TEST ZONE

SOUTH SHORE- Northeast Research Farm

WARNER- Minimum-tillage, Allen & Inel Ryckman Farm (cooperators)

South Shore, Group-0 (Tables 1a & 1b): The 2007 and two-year test yield averages were 52 and 42 bushels per acre, respectively (Table 1a). Varieties had to average 55 bushels or higher to be in the top yield group for 2007. Likewise, varieties had to average 38 bushels or higher to be in the top yield group for two years. Variety yield averages had to differ by 3 bushels in 2007 to be significantly different, while yield differences for two years were non-significant (NS). The 2007 protein, oil, and lodging score test averages were 35.9%, 19.3%, and 2, respectively (Table 1b). Variety protein and oil values had to average 37.1% and 19.9% or higher, respectively, to be in the top groups for protein and oil in 2007. Variety protein and oil averages had to differ by 0.9% and 0.5%, respectively, to be significantly different. Variety lodging score values had to equal 1 to be in the top performance group for resisting lodging, and lodging values had to differ by 1 to be significantly different.

Warner, Group-0 (Tables 1a & 1b): The 2007 and two-year test yield averages were 49 and 42 bushels per acre, respectively (Table 1a). Varieties had to average 51 bushels or higher to be in the top yield group for 2007. Likewise, varieties had to average 37 bushels or higher to be in the top yield group for two years. Variety yield averages had to differ by 4 bushels in 2007 to be significantly different, while yield differences for two years were non-significant (NS). The 2007 protein, oil, and lodging score test averages were 32.5%, 20.5%, and 1, respectively (Table 1b). Variety protein and oil values had to average 33.0% and 21.2% or higher, respectively, to be in the top groups for protein and oil in 2007. Variety protein and oil averages had to differ by 1.2% and 0.5%, respectively, to be significantly different. Variety lodging score values did not differ among varieties; therefore, they were not significantly different

Northern test zone, Group-0 (Tables 1a & 1b): The 2007 and two-year test yield averages in the Northern zone were 51 and 42 bushels per acre, respectively (Table 1a). The effect of variety on yield differed significantly between the two locations for both 2007 and for two years. Growers are encouraged to evaluate varieties by looking at the 2007 and 2-Yr columns at each location and disregard the yield averages in the Northern zone columns. The 2007 protein, oil, and lodging score test averages were 34.2%, 19.9%, and 1, respectively, across both locations (Table 1b). Like the yield values, the protein, oil, and lodging score values also differed significantly between locations in 2007; therefore, evaluate variety performance by looking at the data columns at each location and not at the Northern zone columns.

South Shore, Group-I (Tables 2a & 2b): The 2007 and two-year test yield averages were 50 and 39 bushels per acre, respectively (Table 2a). Varieties had to average 54 bushels and 35 bushels or higher to be in the top yield group for 2007 and for two years, respectively. Variety yield averages had to differ by 3 bushels in 2007 to be in the top performance group for yield, while the two-year average differences were non-significant (NS). The 2007 protein, oil, and lodging score test averages were 35.3%, 19.3%, and 1, respectively (Table 2b). Variety protein and oil values had to average 36.5% and 20.3% or higher, respectively, to be in the top groups for protein and oil in 2007. Variety protein and oil averages had to differ by 1.0% and 0.5%, respectively, to be significantly different. Variety lodging score values had to equal 1 to be in the top performance group for resisting lodging, and lodging values had to differ by 1 to be significantly different.

Warner, Group-I (Tables 2a & 2b): The 2007 and two-year test yield averages were 55 and 44 bushels per acre, respectively (Table 2a). Varieties had to average 58 bushels and 43 bushels or higher to be in the top yield group for 2007 and for two years, respectively. Variety yield averages had to differ by 5 bushels in 2007 and 6 bushels for two years to be significantly different. The 2007 protein, oil, and lodging score test averages were 31.9%, 20.3%, and 1, respectively (Table 2b). Variety protein and oil values had to average 33.3% and 22.6% or higher, respectively, to be in the top groups for protein and oil in 2007. Variety protein and oil averages had to differ by 1.3% and 1.0%, respectively, to be significantly different. Variety lodging score values did not differ among varieties; therefore, they were not significantly different.

Northern test zone, Group-I (Tables 2a & 2b): The 2007 and two-year yield test averages were 53 and 42 bushels per acre, respectively (Table 2a). The effect of variety on yield differed significantly between the two locations for both 2007 and for two years. Growers are encouraged to evaluate varieties by looking at the 2007 and 2-yr columns at each location and disregard the yield averages in the Northern zone columns. The 2007 protein, oil, and lodging score test averages were 33.6%, 19.8%, and 1, respectively, across both locations (Table 2b). Like the yield values, the protein, oil, and lodging score values also differed significantly

between locations in 2007; therefore, evaluate variety performance by looking at the data columns at each location and not at the Northern zone columns.

CENTRAL TEST ZONE

BROOKINGS, SDSU Plant Science Research Farm, conventional tillage

Bancroft, No-till, Erland Weerts (cooperator)

Brookings, Group-0 (Tables 3a & 3b): The 2007 and two-year test yield averages were 58 and 55 bushels per acre, respectively (Table 3a). Varieties had to average 58 bushels or higher in 2007 and 55 bushels or higher for two years to be in the top yield group. Variety yield averages had to differ by 5 bushels in 2007 and 4 bushels for two years to be significantly different. The 2007 protein, oil, and lodging score test averages were 36.8%, 19.6%, and 1, respectively (Table 3b). Variety protein and oil values had to average 39.1% and 20.7% or higher, respectively, to be in the top groups for protein and oil in 2007. Variety protein and oil averages had to differ by 0.6% and 0.3%, respectively, to be significantly different. Variety lodging score values did not differ among varieties; therefore, they were not significantly different.

Bancroft, Group-0 (Tables 3a & 3b): The 2007 yield average was 60 and 54 bushels per acre for 2007 and for two years, respectively (Table 3a). Varieties had to average 62 and 50 bushels or higher to be in the top yield group for 2007 and for two years, respectively. Variety yield averages had to differ by 4 bushels in 2007 to be significantly different. In contrast, the yield differences among varieties were non-significant for the two-year period. The 2007 protein, oil, and lodging score test averages were 35.3%, 19.5%, and 1, respectively (Table 3b). Variety protein and oil values had to average 36.1% and 20.4% or higher, respectively, to be in the top groups for protein and oil in 2007. Variety protein and oil averages had to differ by 0.9% and 0.5%, respectively, to be significantly different. Variety lodging score values had to equal 1 to be in the top performance group for resisting lodging, and lodging values had to differ by 1 to be significantly different.

Central test zone, Group-0 (Tables 3a & 3b): The 2007 yield average was 59 bushels and the two-year average was 55 bushels per acre (Table 3a). The effect of variety on yield differed significantly between the two locations for 2007, but was non-significant (NS) for two years. Growers are encouraged to evaluate varieties by looking at the 2007 and 2-yr columns at each location and disregard the yield averages in the Central zone columns. The 2007 protein, oil, and lodging score test averages were 36.0%, 19.5%, and 1, respectively, across both locations (Table 3b). Like the yield values, the protein values also differed significantly between locations in 2007; therefore, evaluate variety protein performance by looking at the protein columns at each location and not at the Central zone columns. Variety oil and lodging score values had to equal 20.5 or higher and 1 to be in the top performance group for oil and lodging resistance, respectively. Variety oil and lodging values had to differ by 0.3% and 1, respectively, to be significantly different.

Brookings, Group-I (Tables 4a & 4b): The 2007 and two-year test yield averages were 60 and 57 bushels per acre, respectively (Table 4a). Varieties had to average 63 and 56 bushels or higher to be in the top yield group for 2007 and for two years, respectively. Variety yield averages had to differ by 5 bushels in both 2007 and for two years to be significantly different. The 2007 protein, oil, and lodging score test averages were 36.8%, 20.5%, and 1, respectively (Table 4b). Variety protein and oil values had to average 38.0% and 21.1% or higher, respectively, to be in the top groups for protein and oil in 2007. Variety protein and oil averages had to differ by 1.0% and 0.5%, respectively, to be significantly different. Variety lodging score values had to equal 1 to be in the top performance group for resisting lodging, and lodging values had to differ by 1 to be significantly different.

Bancroft, Group-I (Tables 4a & 4b): The yield average was 58 and 56 bushels per acre for 2007 and for two years, respectively (Table 4a). In 2007, varieties had to average 60 bushels or higher to be in the top yield group, while the effect of variety on yield differences was non-significant (NS) for two years. The 2007 protein, oil, and lodging score test averages were 34.2%, 19.5%, and 1, respectively (Table 4b). Variety protein and oil values had to average 35.6% and 20.1% or higher, respectively, to be in the top groups for protein and oil in 2007. Variety protein and oil averages had to differ by 0.9% and 0.4%, respectively, to be significantly different. Variety lodging score values had to equal 1 to be in the top performance group for resisting lodging, and lodging values had to differ by 1 to be significantly different.

Central test zone, Group-I (Tables 4a & 4b): Yields averaged 59 and 56 bushels per acre, respectfully, for 2007 and for the two-year period (Table 4a). Varieties had to average 63 and 57 bushels or higher to be in the top yield group for 2007 and for two years, respectively. Variety yield averages had to differ by 3 bushels in 2007 and 4 bushels for two years to be significantly different. The 2007 protein, oil, and lodging score test averages were 35.5%, 20.0%, and 1, respectively, across both locations (Table 4b). Like the yield values, the protein, oil, and lodging score values also differed significantly between locations in 2007; therefore, evaluate variety protein and oil performance by looking at the data columns at each location and not at the Central zone columns. Variety lodging score values had to equal 1 to be in the top performance group for resisting lodging, and lodging values had to differ by 1 to be significantly different.

Brookings, Group-II (Tables 5a & 5b): The 2007 and two-year test yield averages were 59 and 58 bushels per acre, respectively (Table 5a). Varieties had to average 59 bushels or higher in 2007 and 56 bushels or higher for two years to be in the top yield group. Variety yield averages had to differ by 5 bushels in 2007 to be significantly different, while differences among varieties were non-significant for two years. The 2007 protein, oil, and lodging score test averages were 36.3%, 19.8%, and 1, respectively (Table 5b). Variety protein and oil values had to average 37.4% and 20.4% or higher, respectively, to be in the top groups for protein and oil in 2007. Variety protein and oil averages had to differ by 0.8% and 0.5%, respectively, to be significantly different. Variety lodging score values had to equal 1 to be in the top performance group for resisting lodging, and lodging values had to differ by 1 to be significantly different.

Bancroft, Group-II (Tables 5a & 5b): The 2007 yield average was 57 and 56 bushels per acre in 2007 and for two years, respectively (Table 5a). Varieties had to average 58 bushels or higher in 2007 and 53 bushels or higher to be in the top yield group for two years. Variety yield averages had to differ by 4 bushels in 2007, while differences among varieties were non-significant (NS) for two years. The 2007 protein, oil, and lodging score test averages

were 34.3%, 19.6%, and 1, respectively (Table 5b). Variety protein and oil values had to average 35.8% and 20.1% or higher, respectively, to be in the top groups for protein and oil in 2007. Variety protein and oil averages had to differ by 1.0% and 0.5%, respectively, to be significantly different. Variety lodging score values had to equal 1 to be in the top performance group for resisting lodging, and lodging values had to differ by 1 to be significantly different.

Central test zone, Group-II (Tables 5a & 5b): The 2007 yield average was 58 and 57 bushels per acre for 2007 and for two years, respectively (Table 5a). Varieties had to average 59 bushels or higher in 2007 and 55 bushel or higher to be in the top yield group for two years. Variety yield averages had to differ by 3 bushels in 2007, while differences among varieties were non-significant (NS) for two years. The 2007 protein, oil, and lodging score test averages were 35.2%, 19.7%, and 1, respectively, across both locations (Table 5b). Like the yield values, the protein, oil, and lodging score values also differed significantly between locations in 2007; therefore, evaluate variety protein and oil performance by looking at the data columns at each location and not at the Central zone columns. Variety lodging score values had to equal 1 to be in the top performance group for resisting lodging, and lodging values had to differ by 1 to be significantly different.

SOUTHERN TEST ZONE

BERESFORD, Conventional tillage, Southeast SD Agricultural Experiment Station

GEDDES, No-till, Curtis Sybesma (cooperator)

Beresford, Group-I (Tables 6a & 6b): The 2007 and two-year test yield averages were 55 and 57 bushels per acre, respectively (Table 6a). Varieties had to average 55 bushels or higher in 2007 and 54 bushels or higher for two years to be in the top yield group. Variety yield averages had to differ by 4 bushels in 2007 and 7 bushel for two years to be significantly different. The 2007 protein, oil, and lodging score test averages were 35.4%, 21.1%, and 1, respectively (Table 6b). Variety protein and oil values had to average 36.5% and 21.8% or higher, respectively, to be in the top groups for protein and oil in 2007. Variety protein and oil averages had to differ by 0.8% and 0.4%, respectively, to be significantly different. Variety lodging score values had to equal 1 to be in the top performance group.

Geddes, Group-I (Tables 6a & 6b): The test yield averages for 2007 and for two years were 55 and 51 bushels per acre, respectively (Table 6a). Varieties had to average 54 bushels or higher in 2007 and 50 bushels or higher for two years to be in the top yield group. Variety yield averages had to differ by 6 bushels both in 2007 and for two years to be significantly different. The 2007 protein, oil, and lodging score test averages were 32.5%, 20.8%, and 1, respectively (Table 6b). Variety protein and oil values had to average 33.3% and 21.3% or higher, respectively, to be in the top groups for protein and oil in 2007. Variety protein and oil averages had to differ by 1.2% and 0.4%, respectively, to be significantly different. Variety lodging score values did not differ among varieties; therefore, they were not significantly different.

Southern test zone, Group-I (Tables 6a & 6b): The 2007 and two-year test yield averages in the Southern zone were 55 and 54 bushels per acre, respectively (Table 6a). Varieties had to average 55 bushels or higher in 2007 and 54 bushels or higher for two years to be in the top yield group. Variety yield averages had to differ by 4 bushels in 2007 and 5 bushels for two years to be significantly different. The 2007 protein, oil, and lodging score test averages were 34.0%, 20.9%, and 1, respectively, across both locations (Table 6b). Like the yield values, the protein, oil, and lodging score values also differed significantly between locations in 2007; therefore, evaluate variety protein and oil performance by looking at the protein and oil columns at each location and not at the Southern zone columns. Variety lodging score values had to equal 1 to be in the top performance group for resisting lodging, and lodging values had to differ by 1 to be significantly different.

Beresford, Group-II (Tables 7a & 7b): The 2007 and two-year test yield averages were 54 and 60 bushels per acre, respectively (Table 7a). Varieties had to average 55 bushels or higher in 2007 and 59 bushels for two years to be in the top yield group. Variety yield averages had to differ by 5 bushels in 2007 and 7 bushels for two years to be significantly different. The 2007 protein, oil, and lodging score test averages were 35.4%, 20.2%, and 1, respectively (Table 7b). Variety protein and oil values had to average 37.0% and 20.9% or higher, respectively, to be in the top groups for protein and oil in 2007. Variety protein and oil averages had to differ by 0.8% and 0.5%, respectively, to be significantly different. Variety lodging score values had to equal 1 to be in the top performance group for resisting lodging, and lodging values had to differ by 1 to be significantly different.

Geddes, Group-II (Tables 7a & 7b): The 2007 and two-year test yield averages were 56 and 51 bushels per acre, respectively (Table 7a). Varieties had to average 58 bushels or higher in 2007 and 47 bushels or higher for two years to be in the top yield group. Variety yield averages had to differ by 7 bushels in 2007 to be significantly different, while the yield average differences were non-significant (NS) for two years. The 2007 protein, oil, and lodging score test averages were 33.3%, 19.7%, and 1, respectively (Table 7b). Variety protein and oil values had to average 34.6% and 20.4% or higher, respectively, to be in the top groups for protein and oil in 2007. Variety protein and oil averages had to differ by 1.5% and 0.8%, respectively, to be significantly different. Variety lodging score values had to equal 1 to be in the top performance group for resisting lodging, and lodging values had to differ by 1 to be significantly different.

Southern test zone, Group-II (Tables 7a & 7b): The 2007 and two-year test yield averages in the Southern zone were 55 and 56 bushels per acre, respectively (Table 7a). The effect of variety on yield differed significantly between the two locations for both 2007 and for two years. Growers are encouraged to evaluate varieties by looking at the 2007 and 2-Yr columns at each location and disregard the yield averages in the Southern zone columns. The 2007 protein, oil, and lodging score test averages were 34.3%, 20.0%, and 1, respectively, across both locations (Table 7b). Like the yield values, the protein, oil, and lodging score values also differed significantly between locations in 2007; therefore, evaluate variety protein and oil performance by looking at the protein and oil columns at each location and not at the Southern zone columns. Variety lodging score values had to equal 1 to be in the top performance group for resisting lodging, and lodging values had to differ by 1 to be significantly different.

NON-ROUNDUP READY SOYBEAN VARIETY PERFORMANCE TRIAL RESULTS

SOUTH SHORE, Conventional tillage, Northeast Research Farm

BERESFORD, Conventional tillage, Southeast SD Agricultural Experiment Stn.

Note: Yields are reported as 2007 averages or 2-yr averages (2006-07)

South Shore, Group-0 (Tables 8a & 8b): The 2007 and two-year test yield averages were 47 and 35 bushels per acre, respectively (Table 8a). Varieties had to average 42 bushels or higher in 2007 and 34 bushels or higher for two years to be in the top yield group. There were no significant differences in yield average among the varieties tested in 2007 and for two years. The 2007 protein, oil, and lodging score test averages were 35.5%, 19.1%, and 1, respectively (Table 8b). Variety protein and oil values had to average 35.5% and 19.5% or higher, respectively, to be in the top groups for protein and oil in 2007. Variety protein and oil averages had to differ by 1.0% and 0.4%, respectively, to be significantly different. Variety lodging score values did not differ among varieties; therefore, they were not significantly different.

South Shore, Group-I (Tables 8a & 8b): The 2007 and two-year test yield averages were 47 and 34 bushels per acre, respectively (Table 8a). Varieties had to average 47 bushels or higher in 2007 to be in the top performance group for yield, while there were no significant differences in yield average among the varieties tested for two years. Variety yield averages had to differ by 3 bushels or more in 2007 to be significantly different. The 2007 protein, oil, and lodging score test averages were 36.3%, 18.1%, and 2, respectively (Table 8b). Variety protein and oil values had to average 37.0% and 18.1% or higher, respectively, to be in the top groups for protein and oil in 2007. Variety protein and oil averages had to differ by 0.9% and 0.7%, respectively, to be significantly different. Variety lodging score values had to equal 1 to be in the top performance group for resisting lodging, and lodging values had to differ by 1 to be significantly different.

Brookings, Group-0 (Tables 9a & 9b): The 2007 and two-year test yield averages were 56 bushels and 46 bushels per acre, respectively (Table 9a). All varieties tested in 2007 and for two years were in the top yield group because the yield average differences among them were non-significant (NS). The 2007 protein, oil, and lodging score test averages were 37.0%, 19.5%, and 1, respectively (Table 9b). Variety protein and oil values had to average 37.7% and 20.0% or higher, respectively, to be in the top groups for protein and oil in 2007. Variety protein and oil averages had to differ by 0.9% and 0.3%, respectively, to be significantly different. Variety lodging score values did not differ among varieties; therefore, they were not significantly different.

Brookings, Group-I (Tables 9a & 9b): The 2007 and two-year test yield averages were 53 bushels and 50 bushels per acre, respectively (Table 9a). Varieties had to average 53 bushels or higher in 2007 and 48 bushels or higher for two years to be in the top performance group for yield. Variety yield averages had to differ by 3 bushels or more in 2007 to be significantly different, while the average differences among the varieties for two years were non-significant (NS). The 2007 protein, oil, and lodging score test averages were 37.4%, 19.8%, and 1, respectively (Table 9b). Variety protein values had to average 38.6% to be in the top performance group for protein in 2007. Variety protein averages had to differ by 1.1% to be significantly different. Variety oil and lodging score values did not differ among varieties; therefore, they were not significantly different.

Brookings, Group-II (Tables 9a & 9b): The 2007 and two-year test yield averages were 47 bushels and 50 bushels per acre, respectively (Table 9a). Varieties had to average 49 bushels or higher in 2007 and 46 bushels or higher for two years to be in the top yield group. Variety yield averages had to differ by 5 bushels in 2007 to be significantly different, while the average differences among the varieties for two years were non-significant. The 2007 protein, oil, and lodging score test averages were 37.4%, 19.1%, and 1, respectively (Table 9b). Variety protein and oil values had to average 38.0% and 18.9% or higher, respectively, to be in the top groups for protein and oil in 2007. Variety protein and oil averages had to differ by 0.8% and 0.7%, respectively, to be significantly different. Variety lodging score values did not differ among varieties; therefore, they were not significantly different.

Beresford, Group-I (Tables 10a & 10b): The 2007 and two-year test yield averages were 41 and 51 bushels per acre, respectively (Table 10a). All varieties tested in 2007 and for two years were in the top yield group because the yield average differences among them were non-significant (NS). The 2007 protein, oil, and lodging score test averages were 35.0%, 20.4%, and 1, respectively (Table 10b). Variety protein and oil values had to average 36.2% and 20.7% or higher, respectively, to be in the top groups for protein and oil in 2007. Variety protein and oil averages had to differ by 0.9% and 0.3%, respectively, to be significantly different. Variety lodging score values had to equal 1 to be in the top performance group for resisting lodging, and lodging values had to differ by 1 to be significantly different.

Beresford, Group-II (Tables 10a & 10b): The 2007 and two-year test yield averages were 44 and 54 bushels per acre, respectively (Table 10a). All varieties tested in 2007 and for two years were in the top yield group because the yield average differences among them were non-significant (NS). The 2007 protein, oil, and lodging score test averages were 35.4%, 19.9%, and 1, respectively (Table 10b). Variety protein and oil values had to average 36.5% and 20.2% or higher, respectively, to be in the top groups for protein and oil in 2007. Variety protein and oil averages had to differ by 0.9% and 0.5%, respectively, to be significantly different. Variety lodging score values did not differ among varieties; therefore, they were not significantly different.

Table A. Monthly nearest weather station totals for precipitation and average temperatures; and their departures from normal (DFN) for the 2007 growing season
Source: South Dakota Office of Climate and Weather. 2007. D. Todey and C. Shukla.

Station (Test site)	Variable		Monthly data beginning April 1 and ending September 30						
			April	May	June	July	Aug.	Sept.	Totals
Aberdeen Airport (Warner)	Precip.- inches	'07	3.42	12.23	2.43	0.79	2.20	1.61	22.68
		DFN*	1.83	9.54	-1.06	-2.13	-0.22	-0.19	7.77
	Avg.Temp. -ºF	'07	41	60	69	74	68	60	
		DFN	-4.1	2.5	2.1	1.6	-2.1	0.5	
South Shore Shore (NE Farm)	Precip.- inches	'07	2.53	1.99	0.95	0.83	1.93	5.66	13.89
		DFN	0.53	-0.73	-2.88	-0.24	0.53	3.77	0.98
	Avg.Temp. -ºF	'07	40	58	66	71	68	61	
		DFN	-3.4	2.6	1.2	0.7	0.2	3.0	
DeSmet/ (Bancroft)	Precip.- inches	'07	3.42	4.25	2.27	1.05	4.27	2.16	17.42
		DFN	1.21	1.17	-1.65	-2.50	1.41	-0.20	-0.56
	Avg.Temp. -ºF	'07	44	62	69	74	70	62	
		DFN	-1.8	4.0	1.6	2.2	-0.1	2.0	
Brookings 2NE	Precip.- inches	'07	3.62	1.86	2.99	0.14	6.45	1.00	16.06
		DFN	1.59	-1.09	-1.24	-2.97	3.51	-1.28	-0.39
	Avg.Temp. -ºF	'07	41	61	68	72	68	61	
		DFN	-3.3	4.0	2.1	0.8	-0.2	1.6	
Centerville "(SE Farm," Beresford)	Precip.- inches	'07	3.04	3.49	2.16	0.00	4.95	1.96	15.60
		DFN	0.57	-0.16	-1.79	-3.35	2.12	-0.30	-2.91
	Avg.Temp. -ºF	'07	46	64	70	75	73	64	
		DFN	-1.6	4.5	0.5	1.6	0.8	1.4	
Platte**/ Academy*** (Geddes)	Precip.- inches	'07	1.76	5.68	6.24	1.47	4.78	1.51	21.44
		DFN	-0.85	1.88	2.83	-1.69	2.31	-0.88	3.60
	Avg.Temp. -ºF	'07	44	62	69	76	72	65	
		DFN	-1.3	4.2	1.5	2.3	0.7	3.5	

* DFN - how much a variable for one year is greater or less (-) than the long-term average
** Precipitation data
*** Temperature data

Table B. Description of soybean trial locations- soil type, tillage methods, previous crop, herbicides, seed inoculants used, a dated seeded.

Location (County)	Soils & Management		Previous crop	Herbicides				Nitragin Soybean Soil Implant	Date seeded
				Applied at label rates					
	Type	Tillage Method		Roundup Ready		Non-Roundup Ready		In-furrow at label rate	
				Pre	Post	Pre	Post		
Warner (Brown)	Harmony-Aberdeen silty clay loam, 0-2% slope	No-till	Corn	None	Roundup once	-	-	Yes	May 24
South Shore (Codington)	Kransburg silty clay loam, 3-6% slope	Conven-tional	S. Wheat	None	Roundup twice	None	Harmony/ Poast split	Yes	May 31
Bancroft (Kingsbury)	Houdek-Stickney-Tetonka loam, 0-3% slope	No-till	Corn	None	Roundup once	-	-	Yes	June 6
Brookings (Brookings)	Barnes clay loam, 0-2% slope	Conven-tional	S. Wheat	None	Roundup twice	None	Harmony/ Poast/ Basagran split	Yes	May 21
Geddess (Chas. Mix)	Highmore-Walke silt loam, 0-2% slope	No-till	Corn	None	Roundup once	-	-	Yes	May 26
Beresford (Clay)	Egan-Clarno-Trent silty clay loam, 0-2% slope	Conven-tional	Corn	None	Roundup/ Assure II/ Kicker plus	None	Raptor/ Assure II/ Kicker plus	Yes	June 9

Table C. Gene race resistance to Phytophthora root rot

Gene	Race Resistance
0	None- No strain resistance
1A	1-2,10-11,13,15-18,24
1B	1,3-9,13-15,18,21-22
1C	1-3,6-11,13,15,17,21,23-24
1K	1-11,13-15,17-18,21-22,24
2	1-5,9-20
3	1-5,8-9,11,13-14,16,18,23,25
4	1-4,10,12-16,18-21,25
5	1-5,8-9,11-14,18,20,25
6	1-4,10,12,14-16,18-21,25
7	16,18,19
K6	1-22,24-25
C3	1-10,13-18,22-25
B3	1-9,13-16,18,21-23,25
MIX	Resistant & Susceptible Plants
NR	Not reported

Table D. 2007 Roundup Ready™ soybean entries by brand/variety, maturity group, and gene for *Phytophthora* root rot resistance as reported by entrants; and performance table number(s)

Brand / Variety	Mat. Grp.	Gene Resistance	Table No.(s)	Brand / Variety	Mat. Grp.	Gene Resistance	Table No.(s)
ASGROW/ AG0701	0.7	Not Reported	1	HEFTY/ EXP168R	1.6	rps1 - None	2,4
ASGROW/ AG0803	0.8	Rps1k	1	HEFTY/ EXP198R	1.9	rps1 - None	4
ASGROW/ AG1102	1.1	Rps1k	2,4	HEFTY/ EXP218RN	2.1	Rps1c	5,7
ASGROW/ AG1403	1.4	Rps1k	2,4	HEFTY/ EXP248R	2.4	Rps3	7
ASGROW/ AG1702	1.7	Rps1k	2,4,6	HEFTY/ EXP298RN	2.9	Rps1c	7
ASGROW/ AG2002	1.9	Rps1c	2,4	KALTENBERG/ KB196RR	1.9	Rps1k	4,6
ASGROW/ AG2108	2.1	Rps1k	5	KALTENBERG/ KB203RR	2	Not Reported	5
ASGROW/ AG2406	2.4	Rps1c	5,7	KALTENBERG/ KB247RR	2.4	Rps1 (Rps1a)	7
ASGROW/ AG2603	2.6	Rps1c	7	KALTENBERG/ KB268RR	2.7	Not Reported	7
ASGROW/ AG2606	2.6	Rps1c	7	KRUGER/ EXP19A07	1.6	Rps1k	2,4,6
ASGROW/ AG2906	2.9	Not Reported	7	KRUGER/ K-042RR	0.4	Rps1 (Rps1a)	1,3
ASGROW/ DKB22-52	2.2	rps1 - None	5	KRUGER/ K-056RR	0.6	Rps1 (Rps1a)	1,3
ASGROW/ DKB25-51	2.5	Rps1k	7	KRUGER/ K-072+RR	0.8	Rps1 (Rps1a)	1,3
ASGROW/ DKB27-52	2.7	Rps1c	7	KRUGER/ K-072RR	0.7	Rps1 (Rps1a)	1,3
COYOTE/ 4523RR	2.3	Rps1k	5,7	KRUGER/ K-091RR	0.9	rps1 - None	1,3
COYOTE/ 4527RR	2.7	Rps1k	5,7	KRUGER/ K-098RR	0.9	rps1 - None	1,3
COYOTE/ 4719RR	1.9	Rps1k	2,4	KRUGER/ K-100RR	1	Rps1k	2,4
COYOTE/ 9524RR	2.4	Rps1k	5	KRUGER/ K-120RR	1.2	Rps1k	2,4,6
COYOTE/ EXP722NRR	2.2	Rps1k	5,7	KRUGER/ K-140RR	1.5	Rps1k	2,4,6
COYOTE/ EXP725NRR	2.5	Rps1k	5,7	KRUGER/ K-142RR	1.4	Rps1k	2,4,6
COYOTE/ EXP728NRR	2.7	Rps1k	5,7	KRUGER/ K-170RR/SCN	1.7	Not Reported	2,4,6
DAIRYLAND/ DSR-0701/RR	0.7	Rps1k	1	KRUGER/ K-194RR	1.9	Rps1k	2,4,6
DAIRYLAND/ DSR-0903/RR	0.9	Not Reported	1,3	KRUGER/ K-195+RR/SCN	1.9	Rps1k	2,4,6
DAIRYLAND/ DSR-1301/RR	1.3	Not Reported	2,4	KRUGER/ K-201RR/SCN	2	Rps1c	5,7
DAIRYLAND/ DSR-1601/RR	1.6	Rps1k	4	KRUGER/ K-234RR	2.4	Not Reported	5,7
DAIRYLAND/ DSR-2200/RR	2.2	Not Reported	7	KRUGER/ K-239RR	2.3	rps1 - None	5,7
DAIRYLAND/ DSR-2300/RR	2.3	Not Reported	7	KRUGER/ K-248RR/SCN	2.5	rps1 - None	5,7
DAIRYLAND/ DSR-2600/RR	2.6	Rps1k	7	KRUGER/ K-256RR	2.5	Not Reported	5,7
DAIRYLAND/ DSR-2770/RR	2.7	Rps1k	7	KRUGER/ K-259RR	2.6	Rps1k	5,7
DAIRYLAND/ DSR1500RRSTS	1.5	Not Reported	2,4	KRUGER/ K-271RR	2.7	rps1 - None	7
DAIRYLAND/ DSR1701RRSTS	1.7	Not Reported	4	KRUGER/ K-275RR/SCN	2.8	Rps1c	7
DAIRYLAND/ DSR1850RRSTS	1.8	Not Reported	4	LATHAM/ EXP-E1700R	1.7	rps1 - None	4
FARM/ ADVANTAGE 7194N	1.9	Rps1c	4	LATHAM/ EXP-E2250R	2.2	Rps1c	7
FARM/ ADVANTAGE 7223N	2.2	Rps1k	5,7	LATHAM/ EXP-E2458RV	2.4	Rps1c	7
FARM/ ADVANTAGE 7233N	2.3	Rps1k	7	LATHAM/ L1950R	1.9	Rps1k	4
FARM/ ADVANTAGE 7254N	2.5	Rps1k	7	LATHAM/ L2085R	2	Rps1c	7
GOLD/ COUNTRY 2509RR	0.9	Not Reported	1	LATHAM/ L2158R	2	Rps1k	7
GOLD/ COUNTRY 2713RR	1.3	Not Reported	2	LATHAM/ L2337R	2.3	rps1 - None	7
GOLD/ COUNTRY 2815RR	1.5	Not Reported	2,4	LATHAM/ L2500R	2.5	rps1 - None	7
GOLD/ COUNTRY 3817RR	1.7	Not Reported	2,4	LATHAM/ L2780RV	2.7	rps1 - None	7
GOLD/ COUNTRY 3825NRR	2.5	Not Reported	7	LATHAM/ L2810R	2.8	rps1 - None	7
GOLD/ COUNTRY 8716RR	1.6	Not Reported	2	MUSTANG/ M-066RR	0.6	Rps1 (Rps1a)	1
GOLD/ COUNTRY 9822RR	2.2	Not Reported	7	MUSTANG/ M-075RR	0.7	Rps1 (Rps1a)	1
HEFTY/ 067R	0.6	rps1 - None	1	MUSTANG/ M-095RR	0.9	rps1 - None	1,3
HEFTY/ 117R	1.1	rps1 - None	2	MUSTANG/ M-096RR	0.9	rps1 - None	1,3
HEFTY/ 137R	1.3	Rps1k	2,4	MUSTANG/ M-097RR	0.9	Rps1c	1,3
HEFTY/ 226R	2.2	Rps1 (Rps1a)	7	MUSTANG/ M-115RR	1.1	Rps1c	2,4
HEFTY/ 257RN	2.5	rps1 - None	7	MUSTANG/ M-168RR	1.6	rps1 - None	2,4
HEFTY/ 266R	2.6	Rps1c	7	MUSTANG/ M-207RR	2	Rps1 (Rps1a)	5
HEFTY/ 277RN	2.7	Rps1k	7	MUSTANG/ M-228NRR	2.2	Rps1k	7

Table D. 2007 Roundup Ready™ soybean entries by brand/variety, maturity group, and gene for *Phytophthora* root rot resistance as reported by entrants; and performance table number(s)

Brand / Variety	Mat. Grp.	Gene Resistance	Table No.(s)	Brand / Variety	Mat. Grp.	Gene Resistance	Table No.(s)
MUSTANG/ M-237RR	2.3	Rps1k	7	PRAIRIE/ BR. PB-1954RR	1.9	rps1 - None	2,4,6
MUSTANG/ M-238NRR	2.3	Rps1k	7	PRAIRIE/ BR. PB-1956RR	1.9	Rps1c	2,4,6
MUSTANG/ M-246NRR	2.4	rps1 - None	7	PRAIRIE/ BR. PB-2117NRR	2.1	Rps1k	5
MUSTANG/ M-264RR	2.6	Rps1k	7	PRAIRIE/ BR. PB-2147RR	2.1	rps1 - None	5
MUSTANG/ M-277NRR	2.7	Rps1c	7	PRAIRIE/ BR. PB-2207NRR	2.2	Rps1k	5
MUSTANG/ M-318RR	2	Rps1c	7	PRAIRIE/ BR. PB-2216RR	2.2	Rps1 (Rps1a)	5
MUSTANG/ T-138RR	1.3	Rps1 (Rps1a)	2	PRAIRIE/ BR. PB-2243RR	2.2	Rps1k	5,7
NORTHSTAR/ NS 1012RR	1	Not Reported	2	PRAIRIE/ BR. PB-2337NRR	2.3	Rps1k	5
NORTHSTAR/ NS 1123RR	1.1	Not Reported	2,4	PRAIRIE/ BR. PB-2396RR	2.3	rps1 - None	5
NORTHSTAR/ NS 1311RR	1.3	Not Reported	2,4	PRAIRIE/ BR. PB-2421RR	2.4	Rps1k	5,7
NORTHSTAR/ NS 1312RR	1.3	Not Reported	2,4	PRAIRIE/ BR. PB-2447RR	2.4	rps1 - None	7
NUTECH/ NT-0886RR	0.8	Not Reported	1	PRAIRIE/ BR. PB-2456RR	2.4	Rps1k	5
NUTECH/ NT-0889RR	0.8	Not Reported	1	PRAIRIE/ BR. PB-2515RR	2.5	Rps1k	5,7
NUTECH/ NT-0990RR	0.9	Not Reported	1,3	PRAIRIE/ BR. PB-2565RR	2.5	Rps1c	7
NUTECH/ NT-1212RR	1.2	Not Reported	2	PRAIRIE/ BR. PB-2636NRR	2.6	Rps1k	7
NUTECH/ NT-1766RR	1.7	Not Reported	2,4	PRAIRIE/ BR. PB-2667NRR	2.6	Rps1c	7
NUTECH/ NT-1808RR/SCN	1.8	Rps1c	6	PRAIRIE/ BR. PB-2697NRR	2.6	Rps1c	7
NUTECH/ NT-1991RR	1.9	Rps1k	2,4,6	PRAIRIE/ BR. PB-2707RR	2.7	Rps1k	7
NUTECH/ NT-2220RR	2.2	Not Reported	5,7	PRAIRIE/ BR. PB-EX117NRR	1.8	Rps1k	6
NUTECH/ NT-6105	0.9	Rps1k	1,3	PRAIRIE/ BR. PB-EX147RR	1.8	rps1 - None	6
NUTECH/ NT-6133	1.3	Not Reported	2,4	PRAIRIE/ BR. PB-EX207RR	1.9	Rps1k	4,6
NUTECH/ NT-6145	1.4	Not Reported	2	PRAIRIE/ BR. PB-EX228RR	1.9	rps1 - None	6
NUTECH/ NT-6156	1.5	Not Reported	4	PRAIRIE/ BR. PB-EX271RR	2.7	Rps1c	7
NUTECH/ NT-6166	1.6	Rps1k	2,4	RENK/ RS124NRR	1.2	Rps1c	4
NUTECH/ NT-6175	1.7	Not Reported	4	RENK/ RS147RR	1.4	Not Reported	4
NUTECH/ NT-6211	2.1	Not Reported	5,7	RENK/ RS187NRR	1.8	Rps1k	4
NUTECH/ NT-6219	2.1	Not Reported	7	RENK/ RS204NRR	2	Rps1k	5
NUTECH/ NT-6242	2.4	Not Reported	5,7	RENK/ RS247NRR	2.4	Rps1c	7
NUTECH/ NT-6255	2.5	Rps3	7	RENK/ RS253RR	2.5	Not Reported	7
NUTECH/ NT-6281	2.8	Rps1k	7	RENK/ RS277NRR	2.7	Not Reported	7
NUTECH/ NT-7193RR/SCN	1.9	Rps1k	4,6	RG/ 607RR	0.7		1,3
NUTECH/ NT-7205+RR	1.9	Rps1k	2,4,6	SD/ 1092RR	0.9	Rps1k	1,3
NUTECH/ NT-7206	2.6	Rps1k	7	SD/ 1111RR	1.1	Rps1 (Rps1a)	2,4,6
NUTECH/ NT-7222	2.2	Rps1k	7	SD/ 1161RR/SCN	1.6	Rps1 (Rps1a)	2,4,6
NUTECH/ NT-7227	2.2	Rps1k	5	SEEDS 2000/ 2090RR	0.9	Not Reported	1
NUTECH/ NT-7234RR	2.3	Rps1k	5	SEEDS 2000/ 2120RR	1.2	Rps1k	2
NUTECH/ NT-7282	2.8	Rps1c	7	STINE/ 1008-4	1	rps1 - None	2,4
NUTECH/ NT-7293	2.9	Rps1k	7	STINE/ 1108-4	1.1	rps1 - None	2
PRAIRIE/ BR. PB-0636RR	0.6	Rps1k	1	STINE/ 1432-4	1.4	Rps1k	2,4
PRAIRIE/ BR. PB-0923RR	0.9	Rps1k	1,3	STINE/ 1468-4	1.4	rps1 - None	2,4
PRAIRIE/ BR. PB-0936RR	0.9	rps1 - None	1,3	STINE/ 1916-4	1.9	rps1 - None	2,4
PRAIRIE/ BR. PB-0954RR	0.9	rps1 - None	1,3	STINE/ 1918-4	1.9	rps1 - None	2,4
PRAIRIE/ BR. PB-1007RR	0.9	Rps1k	1,3	STINE/ 2523-4	2.5	Rps1k	7
PRAIRIE/ BR. PB-1337RR	1.3	rps1 - None	2,4	STINE/ 2862-4	2.8	Rps1k	7
PRAIRIE/ BR. PB-1557NRR	1.5	Rps1k	2,4	THUNDER/ 2511RR	1.1	Rps1k	4
PRAIRIE/ BR. PB-1597RR	1.5	rps1 - None	2,4	THUNDER/ 2608NRR	0.8	Rps1k	1
PRAIRIE/ BR. PB-1607RR	1.6	Rps1k	2,4	THUNDER/ 2709RR	0	Rps1k	1
PRAIRIE/ BR. PB-1737NRR	1.7	rps1 - None	2,4,6	THUNDER/ 2811RR	1.1	Rps1k	4
PRAIRIE/ BR. PB-1754RR	1.7	Rps1 (Rps1a)	2,4,6	THUNDER/ 709RR	0.9	Rps1c	1
PRAIRIE/ BR. PB-1914RR	1.9	rps1 - None	6	WENSMAN/ W 2090RR	0.9	Not Reported	1

Table D. 2007 Roundup Ready™ soybean entries by brand/variety, maturity group, and gene for *Phytophthora* root rot resistance as reported by entrants; and performance table number(s)

Brand / Variety	Mat. Grp.	Gene Resistance	Table No.(s)	Brand / Variety	Mat. Grp.	Gene Resistance	Table No.(s)
WENSMAN/ W 2108RR	1	Not Reported	2	PUBLIC/ SD02R-48	1	Not Reported	2,4
WENSMAN/ W 2124RR	1.2	Not Reported	2,4	PUBLIC/ SD02R-5	2	Not Reported	5,7
WENSMAN/ W 2147NRR	1.4	Not Reported	2,4	PUBLIC/ SD02R-51	1	Not Reported	2,4
WENSMAN/ W 2166RR	1.6	Not Reported	2,4,6	PUBLIC/ SD02R-8	1	Not Reported	2,4
WENSMAN/ W 2172NRR	1.7	Not Reported	2,4,6	PUBLIC/ SD03-1774R	0	Not Reported	1,3
WENSMAN/ W 2195NRR	1.9	Not Reported	4,6	PUBLIC/ SD03-2006R	2	Not Reported	5,7
WENSMAN/ W 2200NRR	2	Not Reported	5,7	PUBLIC/ SD03-2222R	2	Not Reported	5,7
WENSMAN/ W 2222NRR	2.2	Not Reported	5,7	PUBLIC/ SD03-2271R	0	Not Reported	1,3
WENSMAN/ W 2253RR	2.5	Not Reported	7	PUBLIC/ SD03-2768R	0	Not Reported	1,3
WENSMAN/ W 2300RR	2.3	Not Reported	7	PUBLIC/ SD03-3493R	0	Not Reported	1,3
ZILLER/ BT 7083NR	0.8	Rps1k	1	PUBLIC/ SD03-3580R	0	Not Reported	1,3
ZILLER/ BT 7156NR	1.5	rps1 - None	2,4	PUBLIC/ SD03-3920R	0	Not Reported	1,3
ZILLER/ BT 7186NR	1.8	Rps1k	6	PUBLIC/ SDX00R-017-52	1	Not Reported	2,4
ZILLER/ BT 7208NR	2	Rps1c	5	PUBLIC/ SDX00R-020-18	2	Not Reported	5,7
ZILLER/ BT 7217NR	2.1	Rps1k	7	PUBLIC/ SDX00R-035-56	2	Not Reported	5,7
PUBLIC/ SD(LD)05-16118	2	Not Reported	5,7	PUBLIC/ SDX00R-053-46	1	Not Reported	2,4
PUBLIC/ SD(LD)05-16121	1	Not Reported	2,4	PUBLIC/ SDX01R-00403109	1	Not Reported	2,4
PUBLIC/ SD(LD)05-16137	2	Not Reported	5,7	PUBLIC/ SDX01R-007039	2	Not Reported	5,7
PUBLIC/ SD00-1018R	1	Not Reported	2,4	PUBLIC/ SDX04R-68-1-9	1	Not Reported	2,4
PUBLIC/ SD01-1120R	1	Not Reported	2,4				

Table 1a. Roundup Ready™ maturity group-0 soybean variety yield averages- northern South Dakota locations, 2006-2007

Brand/Variety (By 2-yr then 2007 zone yield)	Average DTM*	Northern Averages by Location				Northern Zone Averages	
		South Shore		Warner			
		Bu/Acre 2007	Bu/Acre 2-Yr	Bu/Acre 2007	Bu/Acre 2-Yr	Bu/Acre 2007	Bu/Acre 2-Yr
NUTECH/ NT-0886RR	117	57	43	55	46	56	45
KRUGER/ K-072RR	116	58	46	50	43	54	45
PRAIRIE/ BR. PB-0936RR	117	55	44	53	45	54	45
MUSTANG/ M-096RR	117	54	45	52	44	53	45
NUTECH/ NT-0990RR	117	54	42	52	45	53	44
HEFTY/ 067R	114	56	43	54	42	55	43
DAIRYLAND/ DSR-0903/RR	115	53	43	54	43	54	43
SEEDS 2000/ 2090RR	116	54	43	51	43	53	43
MUSTANG/ M-095RR	116	51	42	51	44	51	43
NUTECH/ NT-0889RR	116	52	42	49	44	51	43
KRUGER/ K-098RR	116	52	42	49	43	51	43
PRAIRIE/ BR. PB-0923RR	116	54	41	51	42	53	42
WENSMAN/ W 2090RR	117	53	41	50	42	52	42
THUNDER/ 709RR	118	50	41	48	43	49	42
ASGROW/ AG0803	117	52	41	49	41	51	41
DAIRYLAND/ DSR-0701/RR	112	52	42	50	40	51	41
KRUGER/ K-056RR	115	53	43	47	39	50	41
KRUGER/ K-042RR	113	51	42	48	39	50	41
MUSTANG/ M-097RR	116	51	42	44	40	48	41
MUSTANG/ M-066RR	115	55	40	47	39	51	40
PRAIRIE/ BR. PB-0954RR	117	52	40	45	40	49	40
MUSTANG/ M-075RR	111	53	41	45	37	49	39
SD/ 1092RR	116	46	38	48	40	47	39
GOLD/ COUNTRY 2509RR	116	.	.	46	42	.	.
NUTECH/ NT-6105	119	52	.	55	.	54	.
KRUGER/ K-072+RR	117	54	.	54	.	54	.
KRUGER/ K-091RR	117	53	.	55	.	54	.
PRAIRIE/ BR. PB-1007RR	119	54	.	54	.	54	.
ASGROW/ AG0701	114	54	.	52	.	53	.
PRAIRIE/ BR. PB-0636RR	114	52	.	53	.	53	.
PUBLIC/ SD03-2768R	120	49	.	51	.	50	.
PUBLIC/ SD03-3493R	117	53	.	46	.	50	.
THUNDER/ 2608NRR	111	52	.	43	.	48	.
PUBLIC/ SD03-1774R	115	52	.	44	.	48	.
THUNDER/ 2709RR	116	48	.	45	.	47	.
PUBLIC/ SD03-2271R	115	49	.	44	.	47	.
PUBLIC/ SD03-3580R	116	47	.	44	.	46	.
RG/ 607RR	110	46	.	43	.	45	.
PUBLIC/ SD03-3920R	116	45	.	45	.	45	.
ZILLER/ BT 7083NR	.	52	.	.	.	.	.
Test avg. :	116	52	42	49	42	51	42
High avg. :	120	58	46	55	46	56	45
Low avg. :	110	45	38	43	37	45	39
# Lsd (.05):		3	NS	4	NS	**	**
## TPG-avg. :		55	38	51	37		
@ Coef. Var.:		3	6	5	6	4	6
No. Entries:	40	39	23	39	24	40	23

* DTM= days to maturity at Warner when seeded May 24, 2007; South Shore is missing due to an early frost

LSD,(.05)= amount values in a column must differ to be significantly different or if they were non-significant (NS)

TPG-avg. = minimum value to qualify for top performance group

@ Coef. Var.= a measure of trial experimental error, 15% or less is best

** The effect of variety differed significantly between locations for both 2007 and for two years. Therefore, evaluate varieties by looking at the 2007 and 2-yr columns at each location, not by looking at the Northern zone columns

Table 1b. Roundup Ready™ maturity group-0 soybean variety protein, oil, and lodging score averages- northern South Dakota locations, 2007

Brand/Variety (By 2007 zone protein)	Average DTM*	Northern Averages by Location						Northern Zone Averages		
		South Shore			Warner					
		Protein (%)	Oil (%)	Lodging (1-5)**	Protein (%)	Oil (%)	Lodging (1-5)**	Protein (%)	Oil (%)	Lodging (1-5)**
SD/ 1092RR	.	37.9	19.2	3	33.5	20.5	1	35.7	19.8	2
SEEDS 2000/ 2090RR	.	37.2	18.3	1	34.1	19.7	1	35.7	19.0	1
PRAIRIE/ BR. PB-0954RR	.	36.6	19.5	2	33.8	20.2	1	35.2	19.9	2
KRUGER/ K-098RR	.	36.5	19.5	2	33.7	20.3	1	35.1	19.9	1
RG/ 607RR	.	36.6	19.6	2	33.6	21.3	1	35.1	20.4	2
THUNDER/ 2608NRR	.	36.0	19.2	3	33.9	20.0	1	35.0	19.6	2
NUTECH/ NT-0889RR	.	36.1	19.0	2	33.3	20.4	1	34.7	19.7	2
NUTECH/ NT-0886RR	.	36.3	18.9	1	33.1	20.3	1	34.7	19.6	1
KRUGER/ K-072RR	.	35.7	19.0	1	33.6	20.1	1	34.6	19.6	1
THUNDER/ 2709RR	.	35.5	19.2	2	33.7	19.9	1	34.6	19.5	2
WENSMAN/ W 2090RR	.	36.3	19.4	2	32.8	20.4	1	34.6	19.9	2
MUSTANG/ M-096RR	.	36.3	19.8	1	32.8	20.5	1	34.5	20.2	1
KRUGER/ K-072+RR	.	35.8	19.0	1	33.0	20.2	1	34.4	19.6	1
PUBLIC/ SD03-2271R	.	36.0	19.2	2	32.8	20.6	1	34.4	19.9	1
MUSTANG/ M-095RR	.	35.9	19.2	3	32.8	20.6	1	34.4	19.9	2
PUBLIC/ SD03-3580R	.	36.4	19.3	2	32.2	21.2	1	34.3	20.3	1
PRAIRIE/ BR. PB-0923RR	.	36.2	19.1	1	32.4	20.4	1	34.3	19.8	1
DAIRYLAND/ DSR-0701/RR	.	36.2	19.2	1	32.4	20.4	1	34.3	19.8	1
DAIRYLAND/ DSR-0903/RR	.	36.1	19.5	1	32.3	20.8	1	34.2	20.1	1
KRUGER/ K-091RR	.	35.9	19.5	1	32.4	20.7	1	34.2	20.1	1
MUSTANG/ M-066RR	.	35.3	20.3	2	32.9	20.3	1	34.1	20.3	1
KRUGER/ K-056RR	.	36.0	20.2	2	32.3	20.4	1	34.1	20.3	1
MUSTANG/ M-075RR	.	35.6	19.0	1	32.6	20.4	1	34.1	19.7	1
NUTECH/ NT-0990RR	.	35.8	19.1	1	32.3	20.3	1	34.1	19.7	1
KRUGER/ K-042RR	.	36.0	20.3	2	31.7	21.6	1	33.9	20.9	1
NUTECH/ NT-6105	.	35.8	19.0	1	31.8	20.2	1	33.8	19.6	1
PRAIRIE/ BR. PB-0936RR	.	35.9	19.1	1	31.4	20.8	1	33.7	20.0	1
MUSTANG/ M-097RR	.	35.4	19.1	1	31.9	20.5	1	33.6	19.8	1
THUNDER/ 709RR	.	35.8	19.0	1	31.4	20.7	1	33.6	19.8	1
PRAIRIE/ BR. PB-1007RR	.	35.2	18.7	1	32.0	20.1	1	33.6	19.4	1
PUBLIC/ SD03-1774R	.	35.4	20.0	2	31.7	21.3	1	33.5	20.6	1
PUBLIC/ SD03-3920R	.	35.6	18.8	2	31.3	20.7	1	33.5	19.7	1
PUBLIC/ SD03-3493R	.	35.3	19.7	2	31.5	21.1	1	33.4	20.4	1
PRAIRIE/ BR. PB-0636RR	.	34.9	19.5	2	32.0	20.2	1	33.4	19.8	2
ASGROW/ AG0803	.	34.5	19.9	3	32.3	20.5	1	33.4	20.2	2
ASGROW/ AG0701	.	34.7	19.7	1	31.4	20.2	1	33.1	20.0	1
HEFTY/ 067R	.	34.6	19.4	2	31.4	20.3	1	33.0	19.9	2
PUBLIC/ SD03-2768R	.	35.2	19.6	2	29.8	21.0	1	32.5	20.3	2
GOLD/ COUNTRY 2509RR	.	.	.	.	34.0	20.1	1	.	.	.
ZILLER/ BT 7083NR	.	36.0	19.3	2	.	.	.	.	.	.
Test avg. :	.	35.9	19.3	2	32.5	20.5	1	34.2	19.9	1
High avg. :	.	37.9	20.3	3	34.1	21.6	1	35.7	20.9	2
Low avg. :	.	34.5	18.3	1	29.8	19.7	1	32.5	19.0	1
# LSD(.05) :		0.9	0.5	1	1.2	0.5	NS	***	***	***
## TPG-avg. :		37.1	19.9	1	33.0	21.2	1			
@ Coef. Var. :		2	2	41	2	1	0	2	1	35
No. Entries :		39	39	39	39	39	39	38	38	38

* DTM= average days from seeding (South Shore- May 31, Warner- May 24, 2007) to maturity, a missing value indicates the site received a hard frost before the variety reached maturity

** Lodging, 1= all plants erect, 5= all plant flat

*** The effect of variety differed significantly between locations for 2007. Therefore, evaluate varieties by looking at the 2007 columns at each location, not by looking at the Northern zone 2007 column.

LSD(.05)= amount values in a column must differ to be significantly different or if they were non-significant (NS)

TPG-avg. = minimum value to qualify for top performance group

@ Coef. Var.= a measure of trial experimental error, 15% or less is best

Table 2a. Roundup Ready™ maturity group-I soybean variety yield averages- northern South Dakota locations, 2006-2007

Brand/Variety (By 2-yr then 2007 zone yield)	Average DTM*	Northern Averages by Location				Northern Zone Averages	
		South Shore		Warner			
		Bu/Acre 2007	Bu/Acre 2-Yr	Bu/Acre 2007	Bu/Acre 2-Yr	Bu/Acre 2007	Bu/Acre 2-Yr
NUTECH/ NT-7205+RR	123	53	40	60	49	57	45
WENSMAN/ W 2108RR	117	55	40	58	49	57	45
ASGROW/ AG1702	121	53	40	56	47	55	44
PRAIRIE/ BR. PB-1954RR	123	50	41	53	46	52	44
ASGROW/ AG1102	118	54	40	59	46	57	43
HEFTY/ 117R	118	54	39	60	46	57	43
NUTECH/ NT-1991RR	124	47	38	61	47	54	43
KRUGER/ K-194RR	123	48	39	56	47	52	43
NUTECH/ NT-1766RR	121	46	39	56	47	51	43
KRUGER/ K-140RR	118	54	40	55	43	55	42
GOLD/ COUNTRY 2713RR	119	52	40	53	43	53	42
PRAIRIE/ BR. PB-1754RR	122	50	40	55	44	53	42
PUBLIC/ SDX00R-017-52	120	47	39	53	44	50	42
HEFTY/ 137R	118	51	38	54	43	53	41
DAIRYLAND/ DSR-1301/RR	119	50	38	53	44	52	41
MUSTANG/ M-115RR	117	49	37	52	44	51	41
PUBLIC/ SD02R-8	123	45	36	54	45	50	41
KRUGER/ K-100RR	116	52	40	52	40	52	40
DAIRYLAND/ DSR1500RRSTS	119	47	37	55	43	51	40
SD/ 1161RR/SCN	123	49	38	53	41	51	40
SD/ 1111RR	118	51	38	50	39	51	39
PUBLIC/ SD00-1018R	118	46	36	51	41	49	39
PUBLIC/ SD01-1120R	123	45	36	48	41	47	39
KRUGER/ K-120RR	115	50	37	48	38	49	38
PUBLIC/ SDX00R-053-46	121	42	35	49	41	46	38
WENSMAN/ W 2166RR	120	57	.	62	.	60	.
MUSTANG/ M-168RR	121	56	.	62	.	59	.
HEFTY/ EXP168R	120	55	.	63	.	59	.
STINE/ 1468-4	121	56	.	62	.	59	.
NUTECH/ NT-6133	118	53	.	60	.	57	.
GOLD/ COUNTRY 2815RR	120	52	.	61	.	57	.
STINE/ 1008-4	116	56	.	58	.	57	.
WENSMAN/ W 2124RR	119	53	.	61	.	57	.
PRAIRIE/ BR. PB-1337RR	119	52	.	60	.	56	.
PRAIRIE/ BR. PB-1597RR	119	55	.	56	.	56	.
NUTECH/ NT-6166	122	52	.	58	.	55	.
KRUGER/ EXP19A07	123	47	.	62	.	55	.
STINE/ 1432-4	121	52	.	57	.	55	.
PRAIRIE/ BR. PB-1607RR	121	52	.	57	.	55	.
NORTHSTAR/ NS 1012RR	119	54	.	56	.	55	.
ASGROW/ AG1403	119	48	.	59	.	54	.
MUSTANG/ T-138RR	118	53	.	55	.	54	.
KRUGER/ K-195+RR/SCN	122	53	.	54	.	54	.
WENSMAN/ W 2147NRR	121	52	.	55	.	54	.
NORTHSTAR/ NS 1311RR	117	54	.	54	.	54	.

Table 2a. Roundup Ready™ maturity group-I soybean variety yield averages- northern locations (continued)

Brand/Variety (By 2-yr then 2007 zone yield)	Average DTM*	Northern Averages by Location				Northern Zone Averages	
		South Shore		Warner			
		Bu/Acre 2007	Bu/Acre 2-Yr	Bu/Acre 2007	Bu/Acre 2-Yr	Bu/Acre 2007	Bu/Acre 2-Yr
PRAIRIE/ BR. PB-1557NRR	122	50	.	55	.	53	.
WENSMAN/ W 2172NRR	121	51	.	54	.	53	.
PUBLIC/ SD(LD)05-16121	123	49	.	57	.	53	.
NUTECH/ NT-6145	118	53	.	50	.	52	.
KRUGER/ K-142RR	119	50	.	54	.	52	.
PRAIRIE/ BR. PB-1956RR	124	43	.	61	.	52	.
SEEDS 2000/ 2120RR	116	50	.	53	.	52	.
PUBLIC/ SDX01R-00403109	114	49	.	53	.	51	.
PUBLIC/ SD02R-48	121	47	.	54	.	51	.
PRAIRIE/ BR. PB-1737NRR	121	49	.	51	.	50	.
ASGROW/ AG2002	123	46	.	52	.	49	.
KRUGER/ K-170RR/SCN	122	48	.	50	.	49	.
PUBLIC/ SD02R-51	123	46	.	52	.	49	.
NUTECH/ NT-1212RR	121	49	.	47	.	48	.
PUBLIC/ SDX04R-68-1-9	121	36	.	42	.	39	.
COYOTE/ 4719RR	.	50	.	.	.	.	.
GOLD/ COUNTRY 8716RR	.	52	40	.	.	.	.
GOLD/ COUNTRY 3817RR	.	51	.	.	.	.	.
STINE/ 1918-4	.	51	39	.	.	.	.
STINE/ 1108-4	116	.	.	54	41	.	.
STINE/ 1916-4	.	49	.	.	.	.	.
ZILLER/ BT 7156NR	.	49	.	.	.	.	.
NORTHSTAR/ NS 1312RR	.	45	.	.	.	.	.
NORTHSTAR/ NS 1123RR	.	52	.	.	.	.	.
Test avg. :	120	50	39	55	44	53	42
High avg. :	124	57	41	63	49	60	45
Low avg. :	114	36	35	42	38	39	38
# Lsd (.05) :		3	NS	5	6	**	***
## TPG-avg. :		54	35	58	43		
@ Coef. Var. :		4	6	6	7	5	30
No. Entries :	61	68	27	61	26	60	25

* DTM= days to maturity at Warner when seeded May 24, 2007; South Shore is missing due to an early frost

LSD,(.05)= amount values in a column must differ to be significantly different or if they were non-significant (NS)

TPG-avg. = minimum value to qualify for top performance group

@ Coef. Var.= a measure of trial experimental error, 15% or less is best

** The effect of variety differed significantly between locations for 2007. Therefore, evaluate varieties by looking at the 2007 columns at each location, not by looking at the Northern zone 2007 column.

*** A coefficient of variation value of 30% indicates there was too much experimental error associated with the 2-yr means to make a valid comparison between varieties using means in this column.

Table 2b. Roundup Ready™ maturity group-I soybean variety protein, oil, and lodging score averages- northern South Dakota locations, 2007

Brand/Variety (By zone protein)	Average DTM*	Northern Averages by Location						Northern Zone Averages		
		South Shore			Warner					
		Protein (%)	Oil (%)	Lodging (1-5)**	Protein (%)	Oil (%)	Lodging (1-5)**	Protein (%)	Oil (%)	Lodging (1-5)**
PUBLIC/ SDX04R-68-1-9	.	37.3	18.2	3	33.6	18.9	2	35.5	18.6	3
KRUGER/ K-170RR/SCN	.	36.1	18.7	2	34.5	19.1	1	35.3	18.9	2
PRAIRIE/ BR. PB-1737NRR	.	36.5	18.9	2	34.1	19.2	1	35.3	19.1	1
PUBLIC/ SDX01R-00403109	.	37.3	19.3	1	33.3	20.3	1	35.3	19.8	1
PRAIRIE/ BR. PB-1754RR	.	37.4	18.3	1	32.4	19.8	1	34.9	19.0	1
DAIRYLAND/ DSR-1301/RR	.	37.0	18.5	1	32.7	20.4	1	34.8	19.4	1
DAIRYLAND/ DSR1500RRSTS	.	37.1	18.5	1	32.2	20.0	1	34.7	19.3	1
NUTECH/ NT-7205+RR	.	35.7	19.0	1	33.4	19.9	1	34.6	19.5	1
STINE/ 1008-4	.	35.6	19.3	1	33.2	20.2	1	34.4	19.8	1
KRUGER/ K-100RR	.	36.2	19.3	1	32.5	20.8	1	34.4	20.1	1
NUTECH/ NT-1766RR	.	35.9	18.1	1	32.8	19.5	1	34.3	18.8	1
ASGROW/ AG1702	.	35.4	19.5	1	33.1	19.8	1	34.3	19.7	1
PRAIRIE/ BR. PB-1956RR	.	37.1	20.7	2	31.4	20.4	1	34.2	20.6	2
SD/ 1161RR/SCN	.	35.4	19.2	1	32.8	19.9	1	34.1	19.6	1
NUTECH/ NT-6133	.	35.5	19.2	1	32.5	19.8	1	34.0	19.5	1
PRAIRIE/ BR. PB-1954RR	.	36.1	19.1	2	31.9	19.9	1	34.0	19.5	2
WENSMAN/ W 2108RR	.	35.3	19.4	1	32.7	20.3	1	34.0	19.9	1
ASGROW/ AG2002	.	36.6	19.0	2	31.3	20.2	1	34.0	19.6	1
KRUGER/ K-194RR	.	35.0	18.8	1	32.9	19.2	1	34.0	19.0	1
SEEDS 2000/ 2120RR	.	35.8	19.0	1	32.0	19.9	1	33.9	19.4	1
KRUGER/ K-140RR	.	34.9	19.6	1	32.7	20.6	1	33.8	20.1	1
PRAIRIE/ BR. PB-1337RR	.	35.8	18.9	1	31.7	20.0	1	33.8	19.5	1
PUBLIC/ SD01-1120R	.	35.9	19.4	2	31.7	20.5	1	33.8	20.0	2
HEFTY/ 117R	.	35.3	19.5	1	32.2	20.3	1	33.8	19.9	1
NUTECH/ NT-6166	.	34.8	19.3	1	32.7	19.7	1	33.8	19.5	1
KRUGER/ K-120RR	.	35.5	18.8	1	32.0	19.6	1	33.8	19.2	1
NORTHSTAR/ NS 1012RR	.	35.4	19.4	1	32.0	20.4	1	33.7	19.9	1
ASGROW/ AG1403	.	35.2	19.3	1	32.2	19.7	1	33.7	19.5	1
KRUGER/ EXP19A07	.	35.2	19.0	1	32.0	20.7	1	33.6	19.8	1
NORTHSTAR/ NS 1311RR	.	35.3	19.7	1	31.9	20.6	1	33.6	20.2	1
NUTECH/ NT-1991RR	.	34.8	19.2	1	32.3	19.4	1	33.6	19.3	1
WENSMAN/ W 2124RR	.	35.8	19.1	2	31.2	20.2	1	33.5	19.6	1
KRUGER/ K-142RR	.	35.0	19.9	1	32.0	20.7	1	33.5	20.3	1
NUTECH/ NT-6145	.	34.8	19.8	1	32.0	20.4	1	33.4	20.1	1
HEFTY/ 137R	.	34.8	19.4	1	32.0	23.5	1	33.4	21.5	1
PRAIRIE/ BR. PB-1607RR	.	35.1	19.1	1	31.6	20.0	1	33.4	19.6	1
MUSTANG/ T-138RR	.	35.1	19.2	1	31.6	20.1	1	33.3	19.7	1
PUBLIC/ SD00-1018R	.	35.4	19.6	2	31.2	21.0	1	33.3	20.3	2
GOLD/ COUNTRY 2713RR	.	34.9	19.8	1	31.5	20.9	1	33.2	20.4	1
PUBLIC/ SD02R-48	.	34.6	19.5	1	31.7	20.1	1	33.1	19.8	1
SD/ 1111RR	.	34.2	20.2	2	31.9	20.9	1	33.1	20.6	2
KRUGER/ K-195+RR/SCN	.	34.6	20.1	1	31.4	20.7	1	33.0	20.4	1
STINE/ 1432-4	.	34.5	19.7	1	31.6	20.8	1	33.0	20.3	1
PUBLIC/ SD02R-51	.	34.4	19.4	1	31.4	19.8	1	32.9	19.6	1
ASGROW/ AG1102	.	33.9	19.1	1	31.9	20.1	1	32.9	19.6	1
PUBLIC/ SD02R-8	.	34.3	19.4	1	31.3	20.3	1	32.8	19.8	1
PUBLIC/ SDX00R-017-52	.	35.1	19.9	2	30.5	21.1	1	32.8	20.5	1
PRAIRIE/ BR. PB-1557NRR	.	34.4	19.8	1	31.1	20.8	1	32.8	20.3	1
WENSMAN/ W 2172NRR	.	34.0	19.9	1	31.5	20.5	1	32.8	20.2	1
PUBLIC/ SDX00R-053-46	.	34.7	19.4	3	30.7	20.4	1	32.7	19.9	2

Table 2b. Roundup Ready™ maturity group-I soybean variety protein, oil, and lodging score averages- northern South Dakota locations, 2007 (continued)

Brand/Variety (By zone protein)	Average DTM*	Northern Averages by Location						Northern Zone Averages		
		South Shore			Warner					
		Protein (%)	Oil (%)	Lodging (1-5)**	Protein (%)	Oil (%)	Lodging (1-5)**	Protein (%)	Oil (%)	Lodging (1-5)**
STINE/ 1468-4	.	34.5	19.8	1	30.8	20.9	1	32.6	20.3	1
PRAIRIE/ BR. PB-1597RR	.	34.8	19.7	1	30.4	21.0	1	32.6	20.4	1
WENSMAN/ W 2166RR	.	34.5	19.7	1	30.7	20.8	1	32.6	20.3	1
GOLD/ COUNTRY 2815RR	.	34.4	19.7	1	30.7	20.8	1	32.5	20.3	1
WENSMAN/ W 2147NRR	.	34.2	19.8	1	30.7	20.8	1	32.5	20.3	1
NUTECH/ NT-1212RR	.	34.4	19.7	1	30.1	20.4	1	32.3	20.0	1
PUBLIC/ SD(LD)05-16121	.	33.4	19.6	1	31.1	19.9	1	32.3	19.8	1
MUSTANG/ M-115RR	.	34.1	19.6	1	30.2	20.7	1	32.2	20.2	1
MUSTANG/ M-168RR	.	34.4	19.9	1	29.9	21.1	1	32.2	20.5	1
HEFTY/ EXP168R	.	34.1	19.4	1	29.9	21.1	1	32.0	20.3	1
COYOTE/ 4719RR	.	35.2	19.3	1	.	.	.	.	.	.
GOLD/ COUNTRY 8716RR	.	35.1	19.2	1	.	.	.	.	.	.
GOLD/ COUNTRY 3817RR	.	33.3	20.0	2	.	.	.	.	.	.
STINE/ 1918-4	.	35.0	19.3	1	.	.	.	.	.	.
STINE/ 1108-4	.	.	.	.	32.4	20.3	1	.	.	.
STINE/ 1916-4	.	36.2	19.0	1	.	.	.	.	.	.
ZILLER/ BT 7156NR	.	36.2	19.3	1	.	.	.	.	.	.
NORTHSTAR/ NS 1312RR	.	35.9	18.9	1	.	.	.	.	.	.
NORTHSTAR/ NS 1123RR	.	35.5	19.0	1	.	.	.	.	.	.
Test avg. :	.	35.3	19.3	1	31.9	20.3	1	33.6	19.8	1
High avg. :	.	37.4	20.7	3	34.5	23.5	2	35.5	21.5	3
Low avg. :	.	33.3	18.1	1	29.9	18.9	1	32.0	18.6	1
# Lsd(.05) :		1.0	0.5	1	1.3	1.0	NS	***	***	***
## TPG-avg. :		36.5	20.3	1	33.3	22.6	1			
@ Coef.Var. :		2	2	34	3	3	0	2	3	26
No. Entries :		68	68	68	61	61	61	60	60	60

* DTM= days from seeding (South Shore- May 31, Warner- May 24, 2007) to maturity; a missing value indicates the site received a hard frost before the variety reached maturity

** Lodging, 1= all plants erect, 5= all plant flat

*** The effect of variety differed significantly between locations for 2007. Therefore, evaluate varieties by looking at the 2007 columns at each location, not by looking at the Northern zone 2007 column.

LSD(.05)= amount values in a column must differ to be significantly different or if they were non-significant (NS)

TPG-avg. = minimum value to qualify for top performance group

@ Coef. Var.= a measure of trial experimental error, 15% or less is best

Table 3a. Roundup Ready™ maturity group-0 soybean variety yield averages- central South Dakota locations, 2006-2007.

Brand/Variety (By 2-yr then 2007 zone yield)	Average DTM*	Central Averages by Location				Central Zone Averages	
		Brookings		Bancroft			
		Bu/Acre 2007	Bu/Acre 2-Yr	Bu/Acre 2007	Bu/Acre 2-Yr	Bu/Acre 2007	Bu/Acre 2-Yr
KRUGER/ K-072RR	113	61	59	66	57	64	58
MUSTANG/ M-095RR	114	62	59	60	54	61	57
PRAIRIE/ BR. PB-0954RR	115	61	57	61	54	61	56
DAIRYLAND/ DSR-0903/RR	111	62	57	60	53	61	55
PRAIRIE/ BR. PB-0923RR	114	58	56	63	54	61	55
KRUGER/ K-098RR	114	60	57	59	53	60	55
PRAIRIE/ BR. PB-0936RR	115	59	57	60	53	60	55
MUSTANG/ M-096RR	115	59	54	63	54	61	54
MUSTANG/ M-097RR	114	57	54	62	52	60	53
KRUGER/ K-056RR	111	50	48	63	55	57	52
SD/ 1092RR	113	51	49	57	50	54	50
KRUGER/ K-072+RR	115	63	.	65	.	64	.
NUTECH/ NT-6105	118	61	.	64	.	63	.
PRAIRIE/ BR. PB-1007RR	119	62	.	62	.	62	.
NUTECH/ NT-0990RR	114	62	.	59	.	61	.
KRUGER/ K-091RR	115	60	.	61	.	61	.
KRUGER/ K-042RR	110	57	.	63	.	60	.
PUBLIC/ SD03-1774R	112	57	.	61	.	59	.
PUBLIC/ SD03-3493R	116	57	.	59	.	58	.
PUBLIC/ SD03-2271R	112	55	.	56	.	56	.
PUBLIC/ SD03-2768R	114	56	.	55	.	56	.
PUBLIC/ SD03-3580R	113	56	.	55	.	56	.
PUBLIC/ SD03-3920R	114	54	.	54	.	54	.
RG/ 607RR	110	48	.	58	.	53	.
Test avg.:	114	58	55	60	54	59	55
High avg. :	119	63	59	66	57	64	58
Low avg. :	110	48	48	54	50	53	50
# Lsd (.05):		5	4	4	NS	**	NS
## TPG-avg. :		58	55	62	50		50
@ Coef. Var.:	24	5	5	4	6	5	13
No. Entries:		24	11	24	11	29	11

* DTM= days to maturity at Brookings and Bancroft when seeded May 21 and June 6, 2007, respectfully

LSD,(.05)= amount values in a column must differ to be significantly different or if they were non-significant (NS)

TPG-avg. = minimum value to qualify for top performance group

@ Coef. Var.= a measure of trial experimental error, 15% or less is best

** The effect of variety differed significantly between locations for 2007. Therefore, evaluate varieties by looking at the 2007 columns at each location, not by looking at the Northern zone 2007 column.

Table 3b. Roundup Ready™ maturity group-0 soybean variety protein, oil, and lodging score averages- central South Dakota locations, 2007

Brand/Variety (By 2007 zone protein)	Average DTM*	Central Averages by Location						Central Zone Averages		
		Brookings			Bancroft					
		Protein (%)	Oil (%)	Lodging (1-5)**	Protein (%)	Oil (%)	Lodging (1-5)**	Protein (%)	Oil (%)	Lodging (1-5)**
SD/ 1092RR	.	39.6	18.8	1	36.9	18.8	2	38.3	18.8	1
RG/ 607RR	.	38.2	19.5	1	36.1	20.2	2	37.2	19.9	2
KRUGER/ K-098RR	.	37.9	19.2	1	35.5	19.2	3	36.7	19.2	2
PUBLIC/ SD03-3580R	.	37.4	19.7	1	36.1	19.5	2	36.7	19.6	1
PRAIRIE/ BR. PB-0954RR	.	37.7	19.3	1	35.6	19.5	2	36.7	19.4	2
KRUGER/ K-072+RR	.	37.0	19.5	1	35.8	19.3	1	36.4	19.4	1
PUBLIC/ SD03-3493R	.	37.1	19.8	1	35.6	19.6	2	36.4	19.7	1
MUSTANG/ M-095RR	.	37.7	19.3	2	35.0	19.5	2	36.3	19.4	2
PUBLIC/ SD03-2271R	.	37.2	19.6	1	35.4	19.5	2	36.3	19.6	2
DAIRYLAND/ DSR-0903/RR	.	36.8	20.2	1	35.6	20.1	2	36.2	20.1	1
KRUGER/ K-072RR	.	37.0	19.5	1	35.4	19.3	1	36.2	19.4	1
PRAIRIE/ BR. PB-0923RR	.	36.4	19.3	1	35.7	19.1	1	36.1	19.2	1
NUTECH/ NT-6105	.	36.3	19.6	1	35.8	18.9	1	36.0	19.2	1
MUSTANG/ M-096RR	.	36.7	19.7	1	35.1	19.7	1	35.9	19.7	1
PRAIRIE/ BR. PB-1007RR	.	36.3	19.3	1	35.4	18.6	1	35.9	18.9	1
PUBLIC/ SD03-3920R	.	36.1	19.5	1	35.5	18.9	1	35.8	19.2	1
KRUGER/ K-091RR	.	36.2	19.6	1	35.2	19.0	1	35.7	19.3	1
KRUGER/ K-056RR	.	36.9	19.5	1	34.2	20.2	1	35.6	19.9	1
PRAIRIE/ BR. PB-0936RR	.	36.0	19.6	1	35.0	19.2	1	35.5	19.4	1
NUTECH/ NT-0990RR	.	36.1	19.6	1	34.7	19.1	1	35.4	19.4	1
MUSTANG/ M-097RR	.	35.6	19.8	1	35.0	19.4	2	35.3	19.6	1
PUBLIC/ SD03-2768R	.	36.1	19.8	2	33.7	19.3	2	34.9	19.6	2
PUBLIC/ SD03-1774R	.	35.6	20.6	1	34.1	20.6	1	34.8	20.6	1
KRUGER/ K-042RR	.	35.6	20.9	1	33.8	20.8	1	34.7	20.8	1
Test avg. :	.	36.8	19.6	1	35.3	19.5	1	36.0	19.5	1
High avg. :	.	39.6	20.9	2	36.9	20.8	3	38.3	20.8	2
High avg. :	.	35.6	18.8	1	33.7	18.6	1	34.7	18.8	1
* LSD(.05) :		0.6	0.3	NS	0.9	0.5	1	***	0.3	1
## TPG-avg. :		39.1	20.7	2	36.1	20.4	1		20.5	1
### Coef.Var. :		1	1	0	2	2	33	1	1	28
No. Entries :		24	24	24	24	24	24	48	48	48

* DTM= average days from seeding (Brookings- May 21, Bancroft- June 6, 2007) to maturity; a missing value indicates the site received a hard frost before the variety reached maturity

** Lodging, 1= all plants erect, 5= all plant flat

*** The effect of variety differed significantly between locations for 2007. Therefore, evaluate varieties by looking at the 2007 columns at each location, not by looking at the Central zone 2007 column.

LSD(.05)= amount values in a column must differ to be significantly different or if they were non-significant (NS)

TPG-avg. = minimum value to qualify for top performance group

@ Coef. Var.= a measure of trial experimental error, 15% or less is best

Table 4a. Roundup Ready™ maturity group-I soybean variety yield averages- central South Dakota locations, 2006-2007

Brand/Variety (By 2-yr then 2007 zone yield)	Average DTM*	Central Averages by Location				Central Zone Averages	
		Brookings		Bancroft			
		Bu/Acre 2007	Bu/Acre 2-Yr	Bu/Acre 2007	Bu/Acre 2-Yr	Bu/Acre 2007	Bu/Acre 2-Yr
STINE/ 1918-4	119	62	61	59	60	61	61
KRUGER/ K-195+RR/SCN	117	63	60	60	60	62	60
WENSMAN/ W 2195NRR	120	64	60	59	57	62	59
NUTECH/ NT-7205+RR	120	58	59	63	58	61	59
KRUGER/ K-194RR	119	62	60	57	58	60	59
PRAIRIE/ BR. PB-1754RR	116	62	58	58	59	60	59
NUTECH/ NT-1991RR	119	61	60	54	57	58	59
PRAIRIE/ BR. PB-1956RR	121	60	59	56	59	58	59
KRUGER/ K-100RR	113	62	59	62	57	62	58
KRUGER/ K-120RR	115	61	56	60	59	61	58
PRAIRIE/ BR. PB-1954RR	119	57	57	58	58	58	58
ASGROW/ AG1702	118	64	60	56	54	60	57
LATHAM/ L1950R	119	60	58	56	56	58	57
WENSMAN/ W 2172NRR	116	63	58	59	54	61	56
ASGROW/ AG1102	113	55	54	62	58	59	56
DAIRYLAND/ DSR-1301/RR	115	61	58	57	53	59	56
KRUGER/ K-140RR	116	56	55	59	56	58	56
DAIRYLAND/ DSR1500RRSTS	114	60	57	56	55	58	56
SD/ 1161RR/SCN	118	58	54	57	57	58	56
MUSTANG/ M-115RR	115	58	56	55	55	57	56
DAIRYLAND/ DSR1701RRSTS	119	59	56	53	56	56	56
HEFTY/ 137R	115	49	52	60	60	55	56
ASGROW/ AG2002	120	62	60	55	49	59	55
PUBLIC/ SDX01R-00403109	113	55	54	54	55	55	55
PUBLIC/ SDX00R-017-52	118	56	55	51	54	54	55
PUBLIC/ SD02R-8	119	54	55	51	52	53	54
PUBLIC/ SD01-1120R	118	55	55	55	51	55	53
PUBLIC/ SDX00R-053-46	117	51	51	53	53	52	52
SD/ 1111RR	114	53	51	54	50	54	51
PUBLIC/ SD00-1018R	113	47	48	54	48	51	48
HEFTY/ EXP168R	117	68	.	63	.	66	.
PRAIRIE/ BR. PB-1597RR	116	67	.	64	.	66	.
MUSTANG/ M-168RR	113	65	.	62	.	64	.
NUTECH/ NT-6156	116	65	.	63	.	64	.
NUTECH/ NT-6133	117	63	.	63	.	63	.
NUTECH/ NT-6166	121	64	.	62	.	63	.
HEFTY/ EXP198R	121	66	.	60	.	63	.
PRAIRIE/ BR. PB-1337RR	116	62	.	63	.	63	.
WENSMAN/ W 2147NRR	116	67	.	59	.	63	.
WENSMAN/ W 2166RR	115	66	.	59	.	63	.
THUNDER/ 2811RR	112	61	.	62	.	62	.
KRUGER/ K-170RR/SCN	119	64	.	59	.	62	.
WENSMAN/ W 2124RR	116	62	.	61	.	62	.
STINE/ 1916-4	121	64	.	58	.	61	.
PRAIRIE/ BR. PB-1557NRR	114	64	.	57	.	61	.

Table 4a. Roundup Ready™ maturity group-I soybean variety yield averages- central locations (continued)

Brand/Variety (By 2-yr then 2007 zone yield)	Average DTM*	Central Averages by Location				Central Zone Averages	
		Brookings		Bancroft			
		Bu/Acre 2007	Bu/Acre 2-Yr	Bu/Acre 2007	Bu/Acre 2-Yr	Bu/Acre 2007	Bu/Acre 2-Yr
ASGROW/ AG1403	118	59	.	61	.	60	.
NUTECH/ NT-6175	117	64	.	56	.	60	.
NUTECH/ NT-7193RR/SCN	118	63	.	57	.	60	.
DAIRYLAND/ DSR-1601/RR	119	60	.	59	.	60	.
DAIRYLAND/ DSR1850RRSTS	121	60	.	59	.	60	.
PRAIRIE/ BR. PB-1607RR	119	61	.	59	.	60	.
THUNDER/ 2511RR	115	60	.	58	.	59	.
LATHAM/ EXP-E1700R	117	59	.	59	.	59	.
PRAIRIE/ BR. PB-1737NRR	117	60	.	57	.	59	.
PRAIRIE/ BR. PB-EX207RR	120	63	.	55	.	59	.
NUTECH/ NT-1766RR	115	58	.	57	.	58	.
KRUGER/ EXP19A07	118	58	.	58	.	58	.
GOLD/ COUNTRY 3817RR	116	58	.	58	.	58	.
NORTHSTAR/ NS 1312RR	114	58	.	55	.	57	.
KRUGER/ K-142RR	117	54	.	58	.	56	.
PUBLIC/ SD(LD)05-16121	119	56	.	51	.	54	.
PUBLIC/ SD02R-51	114	58	.	50	.	54	.
PUBLIC/ SD02R-48	114	57	.	48	.	53	.
PUBLIC/ SDX04R-68-1-9	115	38	.	40	.	39	.
COYOTE/ 4719RR	.	63	58	.	.	.	.
FARM/ ADVANTAGE 7194N	.	65	.	.	.	.	.
GOLD/ COUNTRY 2815RR	.	65	.	.	.	.	.
KALTENBERG/ KB196RR	.	62	.	.	.	.	.
STINE/ 1008-4	112	.	.	63	.	.	.
STINE/ 1432-4	115	.	.	59	.	.	.
STINE/ 1468-4	114	.	.	63	.	.	.
ZILLER/ BT 7156NR	.	62	58	.	.	.	.
NORTHSTAR/ NS 1311RR	120	61	.	.	.	.	.
NORTHSTAR/ NS 1123RR	111	.	.	62	.	.	.
RENK/ RS124NRR	120	57	.	.	.	.	.
RENK/ RS147RR	119	58	.	.	.	.	.
RENK/ RS187NRR	.	62	.	.	.	.	.
Test avg. :	117	60	57	58	56	59	56
High avg. :	121	68	61	64	60	66	61
Low avg. :	111	38	48	40	48	39	48
# Lsd (.05) :		5	5	4	**	3	4
## TPG-avg. :		63	56	60		63	57
### Coef.Var. :		5	6	5	10	5	9
No. Entries :	70	73	32	68	30	64	30

* DTM= days to maturity at Bancroft when seeded June 6, 2007; Brookings is missing due to an early frost

LSD,(.05)= amount values in a column must differ to be significantly different or if they were non-significant (NS)

TPG-avg. = minimum value to qualify for top performance group

@ Coef. Var.= a measure of trial experimental error, 15% or less is best

** Variety averages did not differ significantly for the 2-yr period at Bancroft. There was, however, a significant difference in averages between the years 2006 and 2007. Therefore, evaluate varieties by looking at the 2-yr column under the Northern zone averages.

Table 4b. Roundup Ready™ maturity group-I soybean variety protein, oil, and lodging score averages- central South Dakota locations, 2007

Brand/Variety (By 2007 zone protein)	Average DTM*	Central Averages by Location						Central Zone Averages		
		Brookings			Bancroft					
		Protein (%)	Oil (%)	Lodging (1-5)**	Protein (%)	Oil (%)	Lodging (1-5)**	Protein (%)	Oil (%)	Lodging (1-5)**
DAIRYLAND/ DSR1701RRSTS	.	38.3	19.8	1	36.4	18.7	2	37.4	19.3	1
DAIRYLAND/ DSR1500RRSTS	.	38.2	20.1	1	36.1	18.8	2	37.1	19.5	1
KRUGER/ K-170RR/SCN	.	38.1	19.9	2	36.0	18.8	2	37.0	19.4	2
DAIRYLAND/ DSR1850RRSTS	.	37.6	20.3	1	36.4	18.9	1	37.0	19.6	1
PRAIRIE/ BR. PB-1737NRR	.	38.4	19.9	2	35.5	18.9	1	37.0	19.4	2
PUBLIC/ SDX01R-00403109	.	38.8	20.1	2	34.9	20.2	1	36.8	20.2	2
PRAIRIE/ BR. PB-1337RR	.	37.7	20.3	1	35.9	18.5	1	36.8	19.4	1
WENSMAN/ W 2124RR	.	38.1	19.9	1	35.4	18.8	1	36.8	19.4	1
SD/ 1161RR/SCN	.	38.2	19.8	1	35.2	18.6	1	36.7	19.2	1
NUTECH/ NT-6133	.	38.0	20.0	1	35.4	18.5	1	36.7	19.3	1
DAIRYLAND/ DSR-1301/RR	.	37.6	20.3	1	35.7	19.0	1	36.7	19.7	1
PRAIRIE/ BR. PB-1754RR	.	37.5	19.8	2	35.8	18.7	1	36.7	19.2	1
HEFTY/ EXP198R	.	37.6	20.1	1	35.3	19.1	1	36.5	19.6	1
THUNDER/ 2511RR	.	37.9	20.2	1	34.8	19.8	1	36.4	20.0	1
KRUGER/ EXP19A07	.	37.1	20.3	1	35.4	19.4	1	36.3	19.8	1
NORTHSTAR/ NS 1312RR	.	37.4	20.2	2	35.0	19.2	1	36.2	19.7	2
PUBLIC/ SDX04R-68-1-9	.	38.3	19.4	3	33.8	19.3	3	36.1	19.4	3
STINE/ 1916-4	.	37.2	20.2	1	34.9	18.7	1	36.1	19.5	1
ASGROW/ AG1702	.	36.9	20.5	1	35.2	19.3	1	36.0	19.9	1
NUTECH/ NT-1766RR	.	37.1	19.6	1	34.9	18.7	1	36.0	19.2	1
KRUGER/ K-100RR	.	37.4	20.4	1	34.5	19.9	1	36.0	20.2	1
PUBLIC/ SDX00R-053-46	.	37.8	20.0	2	34.0	19.4	3	35.9	19.7	3
DAIRYLAND/ DSR-1601/RR	.	37.6	20.1	1	34.2	19.5	1	35.9	19.8	1
KRUGER/ K-120RR	.	37.3	19.6	1	34.5	19.1	1	35.9	19.4	1
NUTECH/ NT-6175	.	36.7	20.6	1	35.1	19.4	1	35.9	20.0	1
THUNDER/ 2811RR	.	37.0	20.0	1	34.5	19.2	1	35.8	19.6	1
PRAIRIE/ BR. PB-1954RR	.	37.0	20.1	2	34.5	19.0	2	35.8	19.6	2
ASGROW/ AG1403	.	36.9	20.3	1	34.5	18.6	1	35.7	19.5	1
KRUGER/ K-140RR	.	37.1	20.7	1	34.1	19.9	1	35.6	20.3	1
HEFTY/ 137R	.	37.5	20.3	1	33.7	19.7	1	35.6	20.0	1
NUTECH/ NT-6166	.	36.3	20.3	1	34.8	19.0	1	35.5	19.7	1
STINE/ 1918-4	.	36.3	20.5	1	34.7	19.7	1	35.5	20.1	1
PUBLIC/ SD01-1120R	.	37.0	20.7	2	34.0	19.9	4	35.5	20.3	3
NUTECH/ NT-7205+RR	.	36.0	20.5	1	34.8	19.4	1	35.4	20.0	1
LATHAM/ L1950R	.	36.7	20.1	1	34.1	19.0	1	35.4	19.6	1
PRAIRIE/ BR. PB-1607RR	.	36.5	20.4	1	34.3	18.9	1	35.4	19.7	1
NUTECH/ NT-1991RR	.	37.0	20.4	1	33.7	18.6	1	35.4	19.5	1
KRUGER/ K-195+RR/SCN	.	36.3	21.1	1	34.3	20.3	1	35.3	20.7	1
PUBLIC/ SD02R-51	.	37.5	20.2	1	33.1	19.6	1	35.3	19.9	1
PUBLIC/ SDX00R-017-52	.	36.2	21.5	1	34.3	20.1	1	35.3	20.8	1
KRUGER/ K-142RR	.	36.5	21.1	1	34.0	20.0	1	35.3	20.6	1
PUBLIC/ SD00-1018R	.	37.0	21.2	2	33.5	20.3	2	35.3	20.8	2
ASGROW/ AG2002	.	35.7	20.4	1	34.7	19.3	1	35.2	19.8	1
PUBLIC/ SD02R-8	.	37.7	20.3	1	32.6	20.0	1	35.2	20.2	1
WENSMAN/ W 2195NRR	.	36.1	21.0	1	34.1	20.3	1	35.1	20.7	1

Table 4b. Roundup Ready™ maturity group-I soybean variety protein, oil, and lodging score averages- central South Dakota locations, 2007 (continued)

Brand/Variety (By 2007 zone protein)	Average DTM*	Central Averages by Location						Central Zone Averages		
		Brookings			Bancroft					
		Protein (%)	Oil (%)	Lodging (1-5)**	Protein (%)	Oil (%)	Lodging (1-5)**	Protein (%)	Oil (%)	Lodging (1-5)**
SD/ 1111RR	.	37.7	20.6	3	32.4	20.4	3	35.1	20.5	3
PUBLIC/ SD02R-48	.	37.1	20.3	1	32.9	19.4	1	35.0	19.9	1
ASGROW/ AG1102	.	36.9	20.0	3	32.8	19.4	1	34.9	19.7	2
KRUGER/ K-194RR	.	36.1	20.4	1	33.6	19.3	1	34.8	19.8	1
NUTECH/ NT-7193RR/SCN	.	35.7	21.1	1	33.8	20.1	1	34.8	20.6	1
PRAIRIE/ BR. PB-EX207RR	.	35.5	21.0	1	33.5	20.0	1	34.5	20.5	1
MUSTANG/ M-168RR	.	35.1	21.5	1	33.8	19.7	1	34.5	20.6	1
WENSMAN/ W 2147NRR	.	35.7	21.2	1	33.2	20.3	1	34.5	20.8	1
NUTECH/ NT-6156	.	34.9	21.5	1	33.9	19.9	1	34.4	20.7	1
WENSMAN/ W 2172NRR	.	35.6	21.4	1	33.1	20.1	1	34.4	20.7	1
PRAIRIE/ BR. PB-1557NRR	.	35.4	21.2	1	33.3	20.3	1	34.3	20.8	1
HEFTY/ EXP168R	.	34.9	21.5	1	33.4	19.9	1	34.2	20.7	1
WENSMAN/ W 2166RR	.	34.9	21.5	1	33.3	19.6	1	34.1	20.6	1
PUBLIC/ SD(LD)05-16121	.	35.8	20.5	1	32.5	19.7	1	34.1	20.1	1
PRAIRIE/ BR. PB-1956RR	.	35.7	20.6	1	32.5	20.0	3	34.1	20.3	2
PRAIRIE/ BR. PB-1597RR	.	35.2	21.4	1	33.0	19.6	1	34.1	20.5	1
MUSTANG/ M-115RR	.	35.8	20.5	3	31.9	19.8	2	33.8	20.2	2
GOLD/ COUNTRY 3817RR	.	35.9	20.5	3	31.6	20.1	3	33.8	20.3	3
LATHAM/ EXP-E1700R	.	35.4	21.0	3	31.6	20.4	3	33.5	20.7	3
COYOTE/ 4719RR	.	36.0	20.5	1	.	.	.	.	.	.
FARM/ ADVANTAGE 7194N	.	35.5	21.1	1	.	.	.	.	.	.
GOLD/ COUNTRY 2815RR	.	35.2	21.3	1	.	.	.	.	.	.
KALTENBERG/ KB196RR	.	37.0	20.7	1	.	.	.	.	.	.
STINE/ 1008-4	.	.	.	.	35.1	19.4	1	.	.	.
STINE/ 1432-4	.	.	.	.	34.0	20.3	1	.	.	.
STINE/ 1468-4	.	.	.	.	33.7	20.2	1	.	.	.
ZILLER/ BT 7156NR	.	37.7	20.4	2	.	.	.	.	.	.
NORTHSTAR/ NS 1311RR	.	37.9	20.4	1	.	.	.	.	.	.
NORTHSTAR/ NS 1123RR	.	.	.	.	35.7	18.8	1	.	.	.
RENK/ RS124NRR	.	36.2	20.4	3	.	.	.	.	.	.
RENK/ RS147RR	.	38.9	19.5	1	.	.	.	.	.	.
RENK/ RS187NRR	.	35.5	21.4	1	.	.	.	.	.	.
Test avg. :	.	36.8	20.5	1	34.2	19.5	1	35.5	20.0	1
High avg. :	.	38.9	21.5	3	36.4	20.4	4	37.4	20.8	3
Low avg. :	.	34.9	19.4	1	31.6	18.5	1	33.5	19.2	1
# LSD(.05) :		1.0	0.5	1	0.9	0.4	1	***	***	1
## TPG-avg. :		38.0	21.1	1	35.6	20.1	1			1
@ Coef. Var. :		2	1	34	2	2	27	1		32
No. Entries :		73	73	73	68	68	68	64	64	64

* DTM= average days from seeding (Brookings - May 21, Bancroft- June 6, 2007) to maturity; a missing value indicates the site received a hard frost before the variety reached maturity

** Lodging, 1= all plants erect, 5= all plant flat

*** The effect of variety differed significantly between locations for 2007. Therefore, evaluate varieties by looking at the 2007 columns at each location, not by looking at the Central zone 2007 column.

LSD(.05)= amount values in a column must differ to be significantly different or if they were non-significant (NS)

TPG-avg. = minimum value to qualify for top performance group

@ Coef. Var.= a measure of trial experimental error, 15% or less is best

Table 5a. Roundup Ready™ maturity group-II soybean variety yield averages- central South Dakota locations, 2006-2007

Brand/Variety (By 2-yr then 2007 zone yield)	Average DTM*	Central Averages by Location				Central Zone Averages	
		Brookings		Bancroft			
		Bu/Acre 2007	Bu/Acre 2-Yr	Bu/Acre 2007	Bu/Acre 2-Yr	Bu/Acre 2007	Bu/Acre 2-Yr
ASGROW/ DKB22-52	121	62	60	61	57	62	59
MUSTANG/ M-207RR	119	58	60	59	58	59	59
PRAIRIE/ BR. PB-2243RR	118	57	58	61	60	59	59
PRAIRIE/ BR. PB-2456RR	120	59	57	59	60	59	59
KRUGER/ K-234RR	119	60	59	58	55	59	57
WENSMAN/ W 2200NRR	118	61	60	57	54	59	57
KRUGER/ K-259RR	124	58	56	56	57	57	57
PUBLIC/ SDX00R-020-18	114	55	57	59	56	57	57
PRAIRIE/ BR. PB-2421RR	120	57	57	55	56	56	57
NUTECH/ NT-2220RR	120	57	57	60	55	59	56
PRAIRIE/ BR. PB-2216RR	120	58	56	57	53	58	55
PUBLIC/ SDX01R-007039	120	56	56	57	54	57	55
PUBLIC/ SD02R-5	115	58	57	51	53	55	55
KRUGER/ K-201RR/SCN	117	63	.	60	.	62	.
PRAIRIE/ BR. PB-2207NRR	119	64	.	59	.	62	.
NUTECH/ NT-6211	119	62	.	60	.	61	.
HEFTY/ EXP218RN	118	62	.	60	.	61	.
WENSMAN/ W 2222NRR	119	63	.	59	.	61	.
NUTECH/ NT-7234RR	121	57	.	62	.	60	.
PRAIRIE/ BR. PB-2117NRR	120	64	.	56	.	60	.
PRAIRIE/ BR. PB-2147RR	119	61	.	58	.	60	.
PRAIRIE/ BR. PB-2337NRR	120	64	.	56	.	60	.
NUTECH/ NT-7227	120	63	.	55	.	59	.
NUTECH/ NT-6242	122	58	.	59	.	59	.
KRUGER/ K-239RR	122	59	.	58	.	59	.
PRAIRIE/ BR. PB-2515RR	122	59	.	59	.	59	.
PRAIRIE/ BR. PB-2396RR	121	57	.	58	.	58	.
COYOTE/ 9524RR	121	57	56	56	.	57	.
PUBLIC/ SD(LD)05-16118	120	59	.	55	.	57	.
KRUGER/ K-256RR	119	56	.	55	.	56	.
KRUGER/ K-248RR/SCN	121	59	.	51	.	55	.
PUBLIC/ SDX00R-035-56	120	55	.	54	.	55	.
PUBLIC/ SD(LD)05-16137	115	57	.	50	.	54	.
PUBLIC/ SD03-2006R	115	60	.	45	.	53	.
PUBLIC/ SD03-2222R	121	51	.	45	.	48	.
ASGROW/ AG2108	.	62	.	.	.	.	.
ASGROW/ AG2406	119	.	.	59	.	.	.
COYOTE/ 4523RR	118	.	.	57	.	.	.
COYOTE/ 4527RR	124	.	.	54	.	.	.
COYOTE/ EXP722NRR	.	60	.	.	.	.	.

Table 5a. Roundup Ready™ maturity group-II soybean variety yield averages- central locations (continued)

Brand/Variety (By 2-yr then 2007 zone yield)	Average DTM*	Central Averages by Location				Central Zone Averages	
		Brookings		Bancroft			
		Bu/Acre 2007	Bu/Acre 2-Yr	Bu/Acre 2007	Bu/Acre 2-Yr	Bu/Acre 2007	Bu/Acre 2-Yr
COYOTE/ EXP725NRR	.	62	.	.	.	.	.
COYOTE/ EXP728NRR	.	58	.	.	.	.	.
FARM/ ADVANTAGE 7223N	120	.	.	57	.	.	.
KALTENBERG/ KB203RR	.	52	.	.	.	.	.
ZILLER/ BT 7208NR	.	63	.	.	.	.	.
RENK/ RS204NRR	.	64	.	.	.	.	.
Test avg. :	119	59	58	57	56	58	57
High value :	124	64	60	62	60	62	59
Low avg. :	114	51	56	45	53	48	55
# Lsd (.05) :		5	NS	4	NS	3	NS
## TPG-avg. :		59	56	58	53	59	55
@ Coef. Var. :		5	5	5	9	5	8
No. Entries :	34	42	14	39	13	35	13

* DTM= days to maturity at Bancroft when seeded June 6, 2007; Brookings is missing due to an early frost
# LSD,(.05)= amount values in a column must differ to be significantly different or if they were non-significant (NS)
TPG-avg. = minimum value to qualify for top performance group
@ Coef. Var.= a measure of trial experimental error, 15% or less is best

Table 5b. Roundup Ready™ maturity group-II soybean variety protein, oil, and lodging score averages- central South Dakota locations, 2007

Brand/Variety (By 2007 zone protein)	Average DTM*	Central Averages by Location						Central Zone Averages		
		Brookings			Bancroft					
		Protein (%)	Oil (%)	Lodging (1-5)**	Protein (%)	Oil (%)	Lodging (1-5)**	Protein (%)	Oil (%)	Lodging (1-5)**
PUBLIC/ SDX01R-007039	.	37.8	19.0	2	36.7	18.5	2	37.3	18.8	2
PRAIRIE/ BR. PB-2216RR	.	37.7	19.5	2	36.2	19.1	2	37.0	19.3	2
NUTECH/ NT-7227	.	37.7	19.4	1	36.1	19.5	1	36.9	19.5	1
PRAIRIE/ BR. PB-2337NRR	.	37.4	19.4	1	36.3	19.7	1	36.9	19.6	1
KRUGER/ K-239RR	.	36.9	19.8	1	35.3	19.5	1	36.1	19.7	1
NUTECH/ NT-6211	.	37.4	19.8	1	34.6	19.2	1	36.0	19.5	1
PRAIRIE/ BR. PB-2147RR	.	37.0	19.6	1	34.8	19.6	1	35.9	19.6	1
PRAIRIE/ BR. PB-2396RR	.	37.2	19.4	1	34.6	19.8	1	35.9	19.6	1
PRAIRIE/ BR. PB-2421RR	.	36.5	19.7	1	35.2	19.1	2	35.8	19.4	1
PUBLIC/ SDX00R-020-18	.	37.2	19.9	2	34.5	19.6	1	35.8	19.8	2
KRUGER/ K-234RR	.	37.2	19.0	2	34.1	19.8	2	35.6	19.4	2
NUTECH/ NT-2220RR	.	36.3	19.4	1	34.9	19.0	2	35.6	19.2	1
KRUGER/ K-256RR	.	37.2	19.0	1	33.9	19.2	1	35.5	19.1	1
KRUGER/ K-248RR/SCN	.	35.9	20.1	2	35.2	19.5	1	35.5	19.8	1
PRAIRIE/ BR. PB-2456RR	.	36.5	19.1	1	34.5	19.3	2	35.5	19.2	2
NUTECH/ NT-6242	.	35.6	19.6	1	35.1	20.1	1	35.4	19.9	1
KRUGER/ K-201RR/SCN	.	36.0	20.4	2	34.8	19.6	1	35.4	20.0	1
WENSMAN/ W 2200NRR	.	36.1	20.2	1	34.5	19.8	1	35.3	20.0	1
KRUGER/ K-259RR	.	35.8	19.7	1	34.2	19.4	1	35.0	19.6	1
PRAIRIE/ BR. PB-2117NRR	.	36.1	20.1	1	33.7	20.2	1	34.9	20.2	1
PUBLIC/ SD02R-5	.	36.9	19.6	1	32.8	19.5	1	34.9	19.6	1
PUBLIC/ SD03-2222R	.	35.9	20.1	1	33.8	19.7	1	34.9	19.9	1
ASGROW/ DKB22-52	.	36.0	20.1	1	33.6	19.7	1	34.8	19.9	1
COYOTE/ 9524RR	.	35.5	20.1	1	33.9	19.8	1	34.7	20.0	1
MUSTANG/ M-207RR	.	36.1	20.1	1	33.3	19.1	1	34.7	19.6	1
PUBLIC/ SDX00R-035-56	.	36.2	19.6	2	33.2	19.2	1	34.7	19.4	2
NUTECH/ NT-7234RR	.	35.7	20.0	1	33.7	20.0	1	34.7	20.0	1
PRAIRIE/ BR. PB-2243RR	.	36.1	20.1	1	33.2	20.3	1	34.7	20.2	1
PRAIRIE/ BR. PB-2515RR	.	34.2	20.2	1	34.7	19.6	1	34.5	19.9	1
WENSMAN/ W 2222NRR	.	35.4	20.3	1	33.2	20.3	1	34.3	20.3	1
HEFTY/ EXP218RN	.	34.9	20.8	1	33.5	20.1	1	34.2	20.5	1
PRAIRIE/ BR. PB-2207NRR	.	34.8	20.3	1	33.1	20.2	1	34.0	20.3	1
PUBLIC/ SD(LD)05-16118	.	35.3	19.7	1	32.3	19.7	1	33.8	19.7	1
PUBLIC/ SD(LD)05-16137	.	35.5	19.8	2	31.6	20.1	1	33.5	20.0	1
PUBLIC/ SD03-2006R	.	35.8	20.8	2	31.0	20.5	1	33.4	20.7	1
ASGROW/ AG2108	.	35.3	20.0	1	.	.	.	.	.	.
ASGROW/ AG2406	.	.	.	.	34.9	19.9	1	.	.	.
COYOTE/ 4523RR	.	.	.	.	35.8	18.3	1	.	.	.
COYOTE/ 4527RR	.	.	.	.	34.6	19.9	1	.	.	.
COYOTE/ EXP722NRR	.	38.1	19.6	1	.	.	.	.	.	.
COYOTE/ EXP725NRR	.	36.4	18.9	1	.	.	.	.	.	.
COYOTE/ EXP728NRR	.	36.9	19.1	1	.	.	.	.	.	.
FARM/ ADVANTAGE 7223N	.	.	.	.	35.5	18.8	1	.	.	.
KALTENBERG/ KB203RR	.	35.9	19.7	1	.	.	.	.	.	.
ZILLER/ BT 7208NR	.	35.4	20.8	1	.	.	.	.	.	.
RENK/ RS204NRR	.	35.8	20.8	1	.	.	.	.	.	.
Test avg. :	.	36.3	19.8	1	34.3	19.6	1	35.2	19.7	1
High avg. :	.	38.1	20.8	2	36.7	20.5	2	37.3	20.7	2
Low avg. :	.	34.2	18.9	1	31.0	18.3	1	33.4	18.8	1
# LSD(.05) :		0.8	0.5	1	1.0	0.5	1	***	***	1
## TPG-avg. :		37.4	20.4	1	35.8	20.1	1			1
### Coef.Var. :		1	1	36	2	2	25	2	2	32
No. Entries :		42	42	42	39	39	39	70	70	70

* DTM= average days from seeding (Brookings- May 21, Bancroft- June 6, 2007) to maturity; a missing value indicates the site received a hard frost before the variety reached maturity

** Lodging, 1= all plants erect, 5= all plant flat

*** The effect of variety differed significantly between locations for 2007. Therefore, evaluate varieties by looking at the 2007 columns at each location, not by looking at the Central zone 2007 column.

LSD(.05)= amount values in a column must differ to be significantly different or if they were non-significant (NS)

TPG-avg. = minimum value to qualify for top performance group

@ Coef. Var.= a measure of trial experimental error, 15% or less is best

Table 6a. Roundup Ready™ maturity group-I soybean variety yield averages- southern South Dakota locations, 2006-2007

Brand/Variety (By 2-yr then 2007 zone yield)	Average DTM*	Southern Averages by Location				Southern Zone Averages	
		Beresford		Geddes			
		Bu/Acre 2007	Bu/Acre 2-Yr	Bu/Acre 2007	Bu/Acre 2-Yr	Bu/Acre 2007	Bu/Acre 2-Yr
PRAIRIE/ BR. PB-1956RR	115	56	61	60	56	58	59
ASGROW/ AG1702	109	57	59	56	53	57	56
NUTECH/ NT-1991RR	114	55	58	58	53	57	56
KRUGER/ K-194RR	113	54	57	57	53	56	55
PRAIRIE/ BR. PB-1954RR	112	59	59	53	50	56	55
WENSMAN/ W 2172NRR	110	55	59	56	51	56	55
KRUGER/ K-195+RR/SCN	112	54	59	55	51	55	55
WENSMAN/ W 2195NRR	110	54	57	53	51	54	54
KRUGER/ K-140RR	108	53	54	59	50	56	52
SD/ 1161RR/SCN	110	52	56	53	48	53	52
SD/ 1111RR	109	47	47	48	43	48	45
NUTECH/ NT-7205+RR	116	59	.	58	.	59	.
KRUGER/ EXP19A07	110	56	.	59	.	58	.
WENSMAN/ W 2166RR	110	56	.	60	.	58	.
PRAIRIE/ BR. PB-EX228RR	116	56	.	58	.	57	.
NUTECH/ NT-7193RR/SCN	111	54	.	58	.	56	.
PRAIRIE/ BR. PB-1914RR	114	54	.	56	.	55	.
PRAIRIE/ BR. PB-EX147RR	113	56	.	54	.	55	.
KRUGER/ K-142RR	109	51	.	57	.	54	.
KRUGER/ K-170RR/SCN	110	56	.	51	.	54	.
PRAIRIE/ BR. PB-1754RR	110	57	.	51	.	54	.
KRUGER/ K-120RR	105	52	.	53	.	53	.
PRAIRIE/ BR. PB-1737NRR	110	54	.	52	.	53	.
PRAIRIE/ BR. PB-EX117NRR	113	55	.	51	.	53	.
PRAIRIE/ BR. PB-EX207RR	113	55	.	51	.	53	.
NUTECH/ NT-1808RR/SCN	112	55	.	49	.	52	.
KALTENBERG/ KB196RR	109	57	.	.	.	.	.
ZILLER/ BT 7186NR	108	58	.	.	.	.	.
Test avg. :	111	55	57	55	51	55	54
High avg. :	116	59	61	60	56	59	59
Low avg. :	105	47	47	48	43	48	45
# Lsd (.05) :		4	7	6	6	4	5
## TPG-avg. :		55	54	54	50	55	54
@ Coef. Var. :		4	5	6	7	5	10
No. Entries :	28	28	11	26	11	26	11

* DTM= days to maturity at Beresford and Geddes when seeded June 9 and May 26, 2007, respectfully

LSD,(.05)= amount values in a column must differ to be significantly different or if they were non-significant (NS)

TPG-avg. = minimum value to qualify for top performance group

@ Coef. Var.= a measure of trial experimental error, 15% or less is best

Table 6b. Roundup Ready™ maturity group-I soybean variety protein, oil, and lodging score averages- southern South Dakota locations, 2007

Brand/Variety (By 2007 zone protein)	Average DTM*	Southern Averages by Location						Southern Zone Averages		
		Beresford			Geddes					
		Protein (%)	Oil (%)	Lodging (1-5)*	Protein (%)	Oil (%)	Lodging (1-5)*	Protein (%)	Oil (%)	Lodging (1-5)*
KRUGER/ K-170RR/SCN	.	36.7	20.3	1	34.4	20.2	1	35.6	20.3	1
PRAIRIE/ BR. PB-1754RR	.	37.2	20.2	1	33.3	20.1	1	35.3	20.2	1
PRAIRIE/ BR. PB-1737NRR	.	36.6	20.7	1	33.7	20.2	1	35.2	20.5	1
SD/ 1161RR/SCN	.	36.2	20.6	1	33.3	20.3	1	34.8	20.4	1
KRUGER/ EXP19A07	.	35.6	21.1	1	33.6	20.9	1	34.6	21.0	1
PRAIRIE/ BR. PB-EX147RR	.	35.6	20.8	1	33.2	20.5	1	34.4	20.7	1
ASGROW/ AG1702	.	35.3	21.1	1	33.5	20.4	1	34.4	20.7	1
PRAIRIE/ BR. PB-1914RR	.	35.8	20.8	1	33.0	20.6	1	34.4	20.7	1
NUTECH/ NT-7205+RR	.	36.0	20.9	1	32.7	20.7	1	34.4	20.8	1
NUTECH/ NT-1808RR/SCN	.	35.2	21.2	1	33.2	20.5	1	34.2	20.9	1
NUTECH/ NT-1991RR	.	35.3	20.7	1	32.6	20.2	1	34.0	20.5	1
SD/ 1111RR	.	35.8	22.0	2	32.1	21.6	1	34.0	21.8	2
PRAIRIE/ BR. PB-EX117NRR	.	35.8	21.1	1	32.0	21.2	1	33.9	21.1	1
WENSMAN/ W 2195NRR	.	35.4	21.4	1	32.3	21.4	1	33.9	21.4	1
KRUGER/ K-140RR	.	35.3	21.5	1	32.4	21.0	1	33.8	21.3	1
NUTECH/ NT-7193RR/SCN	.	35.2	21.4	1	32.5	21.3	1	33.8	21.4	1
KRUGER/ K-142RR	.	34.8	21.9	1	32.5	21.0	1	33.7	21.5	1
KRUGER/ K-195+RR/SCN	.	34.9	21.7	1	32.4	21.4	1	33.7	21.6	1
WENSMAN/ W 2172NRR	.	35.1	21.8	1	32.1	21.5	1	33.6	21.7	1
PRAIRIE/ BR. PB-1954RR	.	35.1	20.9	1	32.0	20.7	1	33.6	20.8	1
KRUGER/ K-194RR	.	34.9	20.9	1	32.0	20.2	1	33.5	20.6	1
KRUGER/ K-120RR	.	34.8	20.7	1	32.1	20.0	1	33.4	20.3	1
PRAIRIE/ BR. PB-EX228RR	.	35.1	20.5	1	31.5	20.4	1	33.3	20.4	1
PRAIRIE/ BR. PB-1956RR	.	34.4	21.2	1	31.8	20.8	1	33.1	21.0	1
PRAIRIE/ BR. PB-EX207RR	.	34.2	21.2	1	30.7	21.3	1	32.5	21.3	1
WENSMAN/ W 2166RR	.	33.5	22.1	1	31.3	21.5	1	32.4	21.8	1
KALTENBERG/ KB196RR	.	35.8	21.3	1	.	.	.	.	.	.
ZILLER/ BT 7186NR	.	36.3	20.6	1	.	.	.	.	.	.
Test avg. :	.	35.4	21.1	1	32.5	20.8	1	34.0	20.9	1
High avg. :	.	37.2	22.1	2	34.4	21.6	1	35.6	21.8	2
Low avg. :	.	33.5	20.2	1	30.7	20.0	1	32.4	20.2	1
# LSD(.05) :		0.8	0.4	1	1.2	0.4	NS	***	***	1
## TPG-avg. :		36.5	21.8	1	33.3	21.3	1			1
@ Coef. Var. :		1	1	0	2	1	0	2	1	0
No. Entries :	0	28	28	28	26	26	26	26	26	26

* DTM= average days from seeding (Beresford- June 9, Geddes- May 26, 2007) to maturity; a missing value indicates the site received a hard frost before the variety reached maturity

** Lodging, 1= all plants erect, 5= all plant flat

*** The effect of variety differed significantly between locations for 2007. Therefore, evaluate varieties by looking at the 2007 columns at each location, not by looking at the Southern zone 2007 column.

LSD(.05)= amount values in a column must differ to be significantly different or if they were non-significant (NS)

TPG-avg. = minimum value to qualify for top performance group

@ Coef. Var.= a measure of trial experimental error, 15% or less is best

Table 7a. Roundup Ready™ maturity group-II soybean variety yield averages- southern South Dakota locations, 2006-2007

Brand/Variety (By 2-yr then 2007 zone yield)	Average DTM*	Southern Averages by Location				Southern Zone Averages	
		Beresford		Geddes			
		Bu/Acre 2007	Bu/Acre 2-Yr	Bu/Acre 2007	Bu/Acre 2-Yr	Bu/Acre 2007	Bu/Acre 2-Yr
ASGROW/ DKB25-51	115	56	66	62	55	59	61
PRAIRIE/ BR. PB-2243RR	115	59	61	64	54	62	58
LATHAM/ L2810R	118	57	62	59	54	58	58
NUTECH/ NT-2220RR	115	53	61	58	54	56	58
PRAIRIE/ BR. PB-2421RR	115	55	62	59	52	57	57
DAIRYLAND/ DSR-2200/RR	113	52	60	58	53	55	57
MUSTANG/ M-264RR	119	56	61	57	51	57	56
KRUGER/ K-234RR	114	57	61	57	51	57	56
KRUGER/ K-259RR	118	54	60	56	52	55	56
MUSTANG/ M-237RR	114	57	59	57	51	57	55
DAIRYLAND/ DSR-2600/RR	115	57	60	56	49	57	55
DAIRYLAND/ DSR-2300/RR	113	52	60	51	50	52	55
PRAIRIE/ BR. PB-2636NRR	117	52	55	59	52	56	54
WENSMAN/ W 2200NRR	111	55	60	52	48	54	54
WENSMAN/ W 2253RR	118	51	57	52	50	52	54
LATHAM/ L2500R	113	54	61	48	47	51	54
MUSTANG/ M-246NRR	113	53	56	56	49	55	53
PUBLIC/ SD02R-5	112	53	57	57	49	55	53
PRAIRIE/ BR. PB-2565RR	117	53	56	53	50	53	53
NUTECH/ NT-6211	113	58	.	65	.	62	.
LATHAM/ EXP-E2250R	115	58	.	62	.	60	.
ASGROW/ DKB27-52	117	56	.	62	.	59	.
NUTECH/ NT-7206	115	56	.	61	.	59	.
NUTECH/ NT-6255	116	57	.	60	.	59	.
MUSTANG/ M-238NRR	113	56	.	60	.	58	.
LATHAM/ L2337R	113	56	.	59	.	58	.
PRAIRIE/ BR. PB-2515RR	116	52	.	64	.	58	.
WENSMAN/ W 2222NRR	114	55	.	61	.	58	.
ASGROW/ AG2603	116	55	.	59	.	57	.
NUTECH/ NT-6219	115	55	.	58	.	57	.
NUTECH/ NT-7222	113	57	.	56	.	57	.
KRUGER/ K-239RR	115	54	.	60	.	57	.
LATHAM/ L2158R	114	57	.	57	.	57	.
GOLD/ COUNTRY 9822RR	114	53	.	60	.	57	.
PRAIRIE/ BR. PB-2447RR	115	55	.	59	.	57	.
PRAIRIE/ BR. PB-2667NRR	116	55	.	58	.	57	.
PUBLIC/ SDX00R-035-56	116	54	.	57	.	56	.
KRUGER/ K-256RR	115	56	.	53	.	55	.
LATHAM/ EXP-E2458RV	115	54	.	56	.	55	.
LATHAM/ L2780RV	117	53	.	56	.	55	.
DAIRYLAND/ DSR-2770/RR	118	53	.	56	.	55	.
PRAIRIE/ BR. PB-2707RR	118	54	.	55	.	55	.
PRAIRIE/ BR. PB-EX271RR	116	52	.	57	.	55	.
PUBLIC/ SD(LD)05-16137	111	54	.	56	.	55	.
PUBLIC/ SD03-2006R	112	52	.	58	.	55	.
ASGROW/ AG2406	113	55	.	53	.	54	.
NUTECH/ NT-6242	117	52	.	55	.	54	.
NUTECH/ NT-6281	118	52	.	56	.	54	.
KRUGER/ K-275RR/SCN	116	52	.	56	.	54	.
LATHAM/ L2085R	112	52	.	56	.	54	.

Table 7a. Roundup Ready™ maturity group-II soybean variety yield averages- southern South Dakota locations (continued)

Brand/Variety (By 2-yr then 2007 zone yield)	Average DTM*	Southern Averages by Location				Southern Zone Averages	
		Beresford		Geddes			
		Bu/Acre 2007	Bu/Acre 2-Yr	Bu/Acre 2007	Bu/Acre 2-Yr	Bu/Acre 2007	Bu/Acre 2-Yr
PUBLIC/ SDX00R-020-18	111	52	.	55	.	54	.
PUBLIC/ SD(LD)05-16118	114	53	.	54	.	54	.
ASGROW/ AG2906	118	50	.	55	.	53	.
MUSTANG/ M-228NRR	113	53	.	53	.	53	.
KRUGER/ K-201RR/SCN	111	54	.	51	.	53	.
KRUGER/ K-271RR	118	52	.	54	.	53	.
PUBLIC/ SDX01R-007039	115	51	.	54	.	53	.
MUSTANG/ M-318RR	120	49	.	54	.	52	.
NUTECH/ NT-7282	119	54	.	49	.	52	.
GOLD/ COUNTRY 3825NRR	116	52	.	52	.	52	.
PRAIRIE/ BR. PB-2697NRR	116	52	.	51	.	52	.
WENSMAN/ W 2300RR	119	49	.	54	.	52	.
ASGROW/ AG2606	116	50	.	52	.	51	.
MUSTANG/ M-277NRR	117	51	.	51	.	51	.
NUTECH/ NT-7293	117	51	.	50	.	51	.
HEFTY/ 277RN	117	52	.	49	.	51	.
KRUGER/ K-248RR/SCN	115	52	.	50	.	51	.
PUBLIC/ SD03-2222R	118	50	.	50	.	50	.
COYOTE/ 4523RR	109	50	.	.	.	.	.
COYOTE/ 4527RR	122	.	.	61	.	.	.
COYOTE/ EXP722NRR	118	.	.	56	.	.	.
COYOTE/ EXP725NRR	110	56	.	.	.	.	.
COYOTE/ EXP728NRR	117	53	.	.	.	.	.
FARM/ ADVANTAGE 7254N	111	56	.	.	.	.	.
FARM/ ADVANTAGE 7223N	116	.	.	59	.	.	.
FARM/ ADVANTAGE 7233N	119	.	.	59	.	.	.
HEFTY/ 226R	115	.	.	57	51	.	.
HEFTY/ 266R	119	.	.	53	49	.	.
HEFTY/ EXP218RN	106	55	.	.	.	.	.
HEFTY/ 257RN	109	50	.	.	.	.	.
HEFTY/ EXP298RN	117	55	.	.	.	.	.
HEFTY/ EXP248R	119	.	.	55	.	.	.
KALTENBERG/ KB247RR	112	51	.	.	.	.	.
KALTENBERG/ KB268RR	114	51	.	.	.	.	.
STINE/ 2523-4	108	53	.	.	.	.	.
STINE/ 2862-4	112	47	.	.	.	.	.
ZILLER/ BT 7217NR	112	55	.	.	.	.	.
RENK/ RS253RR	112	54	.	.	.	.	.
RENK/ RS277NRR	115	58	.	.	.	.	.
RENK/ RS247NRR	106	52	.	.	.	.	.
Test avg. :	115	54	60	56	51	55	56
High avg. :	122	59	66	65	55	62	61
Low avg. :	106	47	55	48	47	50	53
# Lsd (.06) :		4	7	7	NS	**	**
## TPG-avg. :		55	59	58	47		
@ Coef. Var. :		5	7	8	7	6	13
No. Entries :	90	83	19	75	21	68	19

* DTM= days to maturity at Beresford and Geddes when seeded June 9 and May 26, 2007, respectfully

LSD,(.05)= amount values in a column must differ to be significantly different or if they were non-significant (NS)

TPG-avg. = minimum value to qualify for top performance group

@ Coef. Var.= a measure of trial experimental error, 15% or less is best

** The effect of variety differed significantly between locations for both 2007 and two years. Therefore, evaluate varieties by looking at the 2007 and 2-yr columns at each location, not by looking at the Northern zone columns.

Table 7b. Roundup Ready™ maturity group-II soybean variety protein, oil, and lodging score averages- southern South Dakota locations, 2007

Brand/Variety (By 2007 zone protein)	Average DTM*	Southern Averages by Location						Southern Zone Averages		
		Beresford			Geddes					
		Protein (%)	Oil (%)	Lodging (1-5)*	Protein (%)	Oil (%)	Lodging (1-5)*	Protein (%)	Oil (%)	Lodging (1-5)*
ASGROW/ AG2606	.	37.7	18.9	1	36.0	18.8	1	36.9	18.9	1
PUBLIC/ SDX01R-007039	.	37.3	19.3	2	36.0	18.9	1	36.6	19.1	2
MUSTANG/ M-238NRR	.	36.8	20.3	1	35.2	19.8	1	36.0	20.0	1
DAIRYLAND/ DSR-2770/RR	.	36.6	20.1	1	35.4	18.9	1	36.0	19.5	1
MUSTANG/ M-277NRR	.	36.5	19.1	1	35.1	18.7	1	35.8	18.9	1
NUTECH/ NT-6281	.	36.9	19.7	1	34.6	19.4	1	35.7	19.6	1
LATHAM/ L2780RV	.	37.0	19.4	1	34.5	19.4	1	35.7	19.4	1
PRAIRIE/ BR. PB-2707RR	.	36.9	19.7	2	34.4	19.2	1	35.7	19.4	2
GOLD/ COUNTRY 9822RR	.	36.4	20.4	1	34.9	19.4	1	35.6	19.9	1
MUSTANG/ M-318RR	.	36.6	19.6	1	34.5	19.0	1	35.6	19.3	1
KRUGER/ K-271RR	.	36.4	20.0	1	34.6	19.2	1	35.5	19.6	1
KRUGER/ K-239RR	.	36.0	20.7	1	34.7	19.4	1	35.4	20.1	1
WENSMAN/ W 2253RR	.	35.9	20.0	1	34.8	18.8	1	35.4	19.4	1
ASGROW/ AG2906	.	36.6	19.3	1	33.9	19.0	1	35.3	19.2	1
DAIRYLAND/ DSR-2200/RR	.	36.3	20.4	1	34.1	19.7	1	35.2	20.1	1
PRAIRIE/ BR. PB-2565RR	.	36.0	19.7	1	34.2	19.2	1	35.1	19.5	1
LATHAM/ L2500R	.	36.3	19.9	1	34.0	19.6	1	35.1	19.7	1
ASGROW/ AG2603	.	35.8	19.8	1	34.4	18.9	1	35.1	19.4	1
LATHAM/ L2158R	.	35.8	20.7	1	34.2	19.9	1	35.0	20.3	1
MUSTANG/ M-246NRR	.	35.9	20.2	1	33.8	19.6	1	34.8	19.9	1
MUSTANG/ M-228NRR	.	36.0	19.9	1	33.4	19.5	1	34.7	19.7	1
NUTECH/ NT-7293	.	35.8	18.8	1	33.4	18.4	1	34.6	18.6	1
GOLD/ COUNTRY 3825NRR	.	35.4	20.4	1	33.8	19.7	1	34.6	20.1	1
LATHAM/ EXP-E2458RV	.	35.2	20.3	1	34.0	19.5	1	34.6	19.9	1
KRUGER/ K-256RR	.	36.1	19.4	1	33.0	19.5	1	34.6	19.5	1
WENSMAN/ W 2300RR	.	36.1	19.9	1	33.0	19.4	1	34.6	19.7	1
NUTECH/ NT-7282	.	36.2	19.8	2	32.8	19.6	1	34.5	19.7	2
LATHAM/ L2085R	.	35.7	20.6	1	33.4	20.1	1	34.5	20.3	1
NUTECH/ NT-2220RR	.	35.2	20.1	1	33.8	19.1	1	34.5	19.6	1
KRUGER/ K-201RR/SCN	.	35.1	20.7	1	33.5	20.0	1	34.3	20.4	1
PUBLIC/ SDX00R-020-18	.	35.0	20.7	1	33.6	19.8	1	34.3	20.3	1
ASGROW/ AG2406	.	35.4	20.9	1	33.1	20.7	1	34.3	20.8	1
NUTECH/ NT-6242	.	35.6	20.3	1	32.9	19.9	1	34.3	20.1	1
NUTECH/ NT-6211	.	34.9	20.8	1	33.5	20.1	1	34.2	20.4	1
PRAIRIE/ BR. PB-2421RR	.	35.1	20.2	1	33.3	19.6	1	34.2	19.9	1
MUSTANG/ M-264RR	.	34.7	20.5	1	33.6	19.4	1	34.1	20.0	1
NUTECH/ NT-7206	.	35.4	20.5	1	32.8	20.4	1	34.1	20.5	1
KRUGER/ K-234RR	.	34.8	20.3	1	33.4	19.7	1	34.1	20.0	1
PRAIRIE/ BR. PB-2243RR	.	35.2	20.3	1	33.0	20.1	1	34.1	20.2	1
NUTECH/ NT-6255	.	34.8	19.8	1	33.4	19.4	1	34.1	19.6	1
HEFTY/ 277RN	.	35.2	20.0	1	32.8	19.5	1	34.0	19.8	1
PRAIRIE/ BR. PB-EX271RR	.	35.4	20.8	1	32.5	20.5	1	34.0	20.6	1
WENSMAN/ W 2200NRR	.	35.0	20.7	1	33.0	20.1	1	34.0	20.4	1
KRUGER/ K-248RR/SCN	.	35.4	20.3	1	32.4	20.3	1	33.9	20.3	1
LATHAM/ L2337R	.	35.0	20.6	1	32.7	20.0	1	33.9	20.3	1
PRAIRIE/ BR. PB-2667NRR	.	34.8	20.1	1	32.9	19.3	1	33.9	19.7	1
MUSTANG/ M-237RR	.	34.7	20.3	1	32.7	19.8	1	33.7	20.1	1
LATHAM/ L2810R	.	34.7	20.4	1	32.7	19.6	1	33.7	20.0	1
KRUGER/ K-259RR	.	35.0	20.5	1	32.3	19.8	1	33.7	20.2	1
PRAIRIE/ BR. PB-2697NRR	.	34.7	20.4	1	32.5	19.9	1	33.6	20.2	1

Table 7b. Roundup Ready™ maturity group-II soybean variety protein, oil, and lodging score averages- southern South Dakota locations, 2007 (continued)

Brand/Variety (By 2007 zone protein)	Average DTM*	Southern Averages by Location						Southern Zone Averages		
		Beresford			Geddes					
		Protein (%)	Oil (%)	Lodging (1-5)*	Protein (%)	Oil (%)	Lodging (1-5)*	Protein (%)	Oil (%)	Lodging (1-5)*
DAIRYLAND/ DSR-2300/RR	.	35.5	20.3	1	31.7	20.2	1	33.6	20.2	1
WENSMAN/ W 2222NRR	.	34.7	20.6	1	32.3	20.4	1	33.5	20.5	1
ASGROW/ DKB27-52	.	34.8	20.3	1	32.1	19.7	1	33.5	20.0	1
DAIRYLAND/ DSR-2600/RR	.	35.1	20.1	1	31.8	19.6	1	33.5	19.9	1
PRAIRIE/ BR. PB-2447RR	.	34.7	20.7	1	32.1	19.9	1	33.4	20.3	1
PUBLIC/ SD02R-5	.	34.5	21.1	1	32.2	20.7	1	33.3	20.9	1
PUBLIC/ SD03-2222R	.	34.4	20.9	1	32.3	20.2	1	33.3	20.6	1
PRAIRIE/ BR. PB-2636NRR	.	33.8	20.9	2	32.7	20.1	2	33.2	20.5	2
PUBLIC/ SD(LD)05-16118	.	33.9	20.6	1	32.5	19.7	1	33.2	20.2	1
KRUGER/ K-275RR/SCN	.	34.2	20.9	1	32.3	20.1	1	33.2	20.5	1
NUTECH/ NT-7222	.	34.2	20.9	1	32.0	20.6	1	33.1	20.8	1
PUBLIC/ SD03-2006R	.	33.6	21.3	1	32.1	21.1	1	32.9	21.2	1
PUBLIC/ SD(LD)05-16137	.	33.1	20.9	1	32.0	20.2	1	32.6	20.6	1
PUBLIC/ SDX00R-035-56	.	34.3	20.0	2	30.7	20.4	1	32.5	20.2	2
NUTECH/ NT-6219	.	33.7	20.9	1	31.1	20.7	1	32.4	20.8	1
LATHAM/ EXP-E2250R	.	33.5	21.0	1	31.1	20.4	1	32.3	20.7	1
ASGROW/ DKB25-51	.	33.4	21.0	1	31.2	20.8	1	32.3	20.9	1
PRAIRIE/ BR. PB-2515RR	.	33.5	20.9	1	30.7	20.4	1	32.1	20.7	1
COYOTE/ 4523RR	.	35.4	19.7	1	.	.	.	.	.	.
COYOTE/ 4527RR	.	.	.	.	33.6	19.6	1	.	.	.
COYOTE/ EXP722NRR	.	.	.	.	34.8	19.9	1	.	.	.
COYOTE/ EXP725NRR	.	35.9	20.0	1	.	.	.	.	.	.
COYOTE/ EXP728NRR	.	36.3	19.9	2	.	.	.	.	.	.
FARM/ ADVANTAGE 7254N	.	35.7	19.7	1	.	.	.	.	.	.
FARM/ ADVANTAGE 7223N	.	.	.	.	34.1	19.6	1	.	.	.
FARM/ ADVANTAGE 7233N	.	.	.	.	35.3	19.6	1	.	.	.
HEFTY/ 226R	.	.	.	.	33.1	19.4	1	.	.	.
HEFTY/ 266R	.	.	.	.	34.2	19.3	1	.	.	.
HEFTY/ EXP218RN	.	34.5	21.3	1	.	.	.	.	.	.
HEFTY/ 257RN	.	35.7	20.2	1	.	.	.	.	.	.
HEFTY/ EXP298RN	.	35.7	19.9	1	.	.	.	.	.	.
HEFTY/ EXP248R	.	.	.	.	32.2	19.3	1	.	.	.
KALTENBERG/ KB247RR	.	35.7	20.7	1	.	.	.	.	.	.
KALTENBERG/ KB268RR	.	36.5	20.1	1	.	.	.	.	.	.
STINE/ 2523-4	.	36.0	19.6	1	.	.	.	.	.	.
STINE/ 2862-4	.	36.1	18.9	1	.	.	.	.	.	.
ZILLER/ BT 7217NR	.	35.7	20.9	1	.	.	.	.	.	.
RENK/ RS253RR	.	37.0	19.6	1	.	.	.	.	.	.
RENK/ RS277NRR	.	34.8	20.0	1	.	.	.	.	.	.
RENK/ RS247NRR	.	35.1	20.7	1	.	.	.	.	.	.
Test avg. :	.	35.4	20.2	1	33.3	19.7	1	34.3	20.0	1
High avg. :	.	37.7	21.3	2	36.0	21.1	2	36.9	21.2	2
Low avg. :	.	33.1	18.8	1	30.7	18.4	1	32.1	18.6	1
# LSD(.05) :		0.8	0.5	1	1.5	0.8	1	***	***	1
## TPG-avg. :		37.0	20.9	1	34.6	20.4	1	2	2	1
@ Coef. Var. :		1	1	8	3	2	7	68	68	8
No. Entries :	0	83	83	83	75	75	75			68

* DTM= average days from seeding (Beresford- June 9, Geddes- May 26, 2007) to maturity; a missing value indicates the site received a hard frost before the variety reached maturity

** Lodging, 1= all plants erect, 5= all plant flat

*** The effect of variety differed significantly between locations for 2007. Therefore, evaluate varieties by looking at the 2007 columns at each location, not by looking at the Southern zone 2007 column.

LSD(.05)= amount values in a column must differ to be significantly different or if they were non-significant (NS)

TPG-avg. = minimum value to qualify for top performance group

@ Coef. Var.= a measure of trial experimental error, 15% or less is best

Table E. 2007 Conventional soybean entries by brand/variety, maturity group, and gene for Phtophthora root rot resistance as reported by entrants; and performance table number(s)

Brand / Variety	Mat. Grp.	Gene Resistance	Table No. (s)	Brand / Variety	Mat. Grp.	Gene Resistance	Table No. (s)
DAIRYLAND/ DSR-22/STSUL	2.2	Not reported	9,10	PUBLIC/ SD03-2154	0	Rps1k	8,9
RICHLAND/ ORGANICS EX16	1	Not reported	8	PUBLIC/ SD03-2327	0	Rps1k	8,9
PUBLIC/ SHEYENNE	0	Rps3	8,9	PUBLIC/ SD03-483	2	rps1 - None	9,10
PUBLIC/ SURGE	0.7	Rps1 (Rps1a)	8,9	PUBLIC/ SD04CV-254	1	rps1 - None	8,9,10
PUBLIC/ HAMLIN	0.9	Rps1k	8,9	PUBLIC/ SD04CV-263	2	rps1 - None	9,10
PUBLIC/ SD00-732	2	Not reported	9,10	PUBLIC/ SD04CV-277	1	rps1 - None	8,9,10
PUBLIC/ SD02-1138	0	Rps1c	8,9	PUBLIC/ SD04CV-405	0	rps1 - None	8,9
PUBLIC/ SD02-22	2	Not reported	9,10	PUBLIC/ SD04CV-460	2	rps1 - None	9,10
PUBLIC/ SD02-833	1	Rps1k	8,9,10	PUBLIC/ SD04CV-519	0	rps1 - None	8,9
PUBLIC/ SD02-906	1	Rps1k	8,9,10	PUBLIC/ SD04CV-534	0	rps1 - None	8,9
PUBLIC/ SD02-911	1	Rps1k	8,9,10	PUBLIC/ SD04CV-620	1	rps1 - None	8,9,10
PUBLIC/ SD02-96	2	Not reported	9,10	PUBLIC/ SD04CV-907	2	rps1 - None	9,10
PUBLIC/ SD03-1537	1	Rps1k	8,9,10	PUBLIC/ SD04CV-941	2	rps1 - None	9,10
PUBLIC/ SD03-1607	1	Rps1k	8,9,10				

Strain or race resistance by gene type is reported in table B

Table 8a. Non-Roundup Ready™ maturity group-0 and -I soybean variety yield averages-South Shore, South Dakota, 2006-2007

Brand/Variety (By maturity group & 2007 yield)	Average DTM*	Averages by Maturity Group			
		MG-0		MG-I	
		Bu/Acre 2007	Bu/Acre 2-Yr	Bu/Acre 2007	Bu/Acre 2-Yr
PUBLIC/ SHEYENNE	.	52	.	.	.
PUBLIC/ SD04CV-534	.	49	.	.	.
PUBLIC/ SD02-1138	.	48	.	.	.
PUBLIC/ SD03-2154	.	48	34	.	.
PUBLIC/ SURGE	.	48	35	.	.
PUBLIC/ HAMLIN	.	47	35	.	.
PUBLIC/ SD03-2327	.	47	37	.	.
PUBLIC/ SD04CV-405	.	45	.	.	.
PUBLIC/ SD04CV-519	.	42	.	.	.
PUBLIC/ SD04CV-620	.	.	.	50	.
PUBLIC/ SD03-1537	.	.	.	50	.
PUBLIC/ SD04CV-277	.	.	.	48	.
PUBLIC/ SD02-906	.	.	.	48	34
PUBLIC/ SD03-1607	.	.	.	47	35
PUBLIC/ SD04CV-254	.	.	.	46	.
PUBLIC/ SD02-911	.	.	.	45	33
PUBLIC/ SD02-833	.	.	.	44	.
RICHLAND/ ORGANICS EX16	.	.	.	43	.
Test avg.:	.	47	35	47	34
High avg.:	.	52	37	50	35
Low avg. :	.	42	34	43	33
# LSD (.05):		NS	NS	3	NS
## TPG-value:		42	34	47	33
@ Coef. Var.:		6	5	3	5
No. Entries:	18	9	4	9	3

* DTM= days to maturity when seeded May 31, 2007; data is missing due to an early frost
# LSD (.05)= amount values in a column must differ to be significantly different or if the were non-significant (NS)
TPG-avg. = minimum value to qualify for top performance group
@ Coef. Var.= a measure of trial experimental error, 15% or less is best

Table 8b. Non-Roundup Ready™ maturity group-0 and -I soybean variety protein, oil, and lodging score averages- South Shore, South Dakota, 2007

Brand/Variety (By maturity group & protein)	Average DTM*	2007 Averages by Maturity Group					
		MG-0			MG-I		
		Protein %	Oil %	Lodging* (1-5)	Protein %	Oil %	Lodging* (1-5)
PUBLIC/ SD04CV-405	.	36.4	18.2	2	.	.	.
PUBLIC/ HAMLIN	.	36.3	19.2	1	.	.	.
PUBLIC/ SURGE	.	36.3	19.0	1	.	.	.
PUBLIC/ SD03-2327	.	36.2	18.8	1	.	.	.
PUBLIC/ SD04CV-519	.	35.9	18.6	1	.	.	.
PUBLIC/ SD04CV-534	.	35.6	19.8	1	.	.	.
PUBLIC/ SD03-2154	.	34.9	19.4	2	.	.	.
PUBLIC/ SD02-1138	.	34.4	19.5	2	.	.	.
PUBLIC/ SHEYENNE	.	33.7	19.8	1	.	.	.
RICHLAND/ ORGANICS EX16	.	.	.	.	37.8	16.4	3
PUBLIC/ SD04CV-620	.	.	.	.	37.6	18.2	1
PUBLIC/ SD02-911	.	.	.	.	36.4	18.5	2
PUBLIC/ SD03-1537	.	.	.	.	36.1	18.0	3
PUBLIC/ SD03-1607	.	.	.	.	36.1	18.0	1
PUBLIC/ SD02-906	.	.	.	.	35.9	18.7	2
PUBLIC/ SD04CV-254	.	.	.	.	35.8	18.1	1
PUBLIC/ SD04CV-277	.	.	.	.	35.8	18.5	1
PUBLIC/ SD02-833	.	.	.	.	35.6	18.3	2
Test avg. :	.	35.5	19.1	1	36.3	18.1	2
High avg. :	.	36.4	19.8	2	37.8	18.7	3
Low avg. :	.	33.7	18.2	1	35.6	16.4	1
# LSD(.05) :		1.0	0.4	NS	0.9	0.7	1
## TPG-avg. :		35.5	19.5	2	37.0	18.1	1
@ Coef. Var. :		2	2	35	2	2	32
No. Entries :		9	9	9	9	9	9

* DTM= days to maturity when seeded May 31, 2007; a missing value indicates the site received a hard frost before the variety reached maturity

** Lodging, 1= all plants erect, 5= all plant flat

LSD(.05)= amount values in a column must differ to be significantly different or if they were non-significant (NS)

TPG-avg. = minimum value to qualify for top performance group

@ Coef. Var.= a measure of trial experimental error, 15% or less is best

Table 9a. Non-Roundup Ready™ maturity group-0, -I & -II soybean variety yield averages- Brookings, South Dakota, 2006-2007

Brand/Variety (By maturity group & 2007 yield)	Average DTM*	Averages by Maturity Group					
		MG-0		MG-I		MG-II	
		Bu/Acre 2007	Bu/Acre 2-Yr	Bu/Acre 2007	Bu/Acre 2-Yr	Bu/Acre 2007	Bu/Acre 2-Yr
PUBLIC/ SD02-1138	.	59	.	.	.	.	.
PUBLIC/ HAMLIN	.	58	46	.	.	.	.
PUBLIC/ SD03-2327	.	58	47	.	.	.	.
PUBLIC/ SD04CV-405	.	57	.	.	.	.	.
PUBLIC/ SD04CV-519	.	56	.	.	.	.	.
PUBLIC/ SD03-2154	.	56	47	.	.	.	.
PUBLIC/ SD04CV-534	.	55	.	.	.	.	.
PUBLIC/ SHEYENNE	.	55	.	.	.	.	.
PUBLIC/ SURGE	.	54	43	.	.	.	.
PUBLIC/ SD02-833	.	.	.	56	.	.	.
PUBLIC/ SD04CV-254	.	.	.	55	.	.	.
PUBLIC/ SD04CV-277	.	.	.	55	.	.	.
PUBLIC/ SD03-1537	.	.	.	54	.	.	.
PUBLIC/ SD04CV-620	.	.	.	53	.	.	.
PUBLIC/ SD02-911	.	.	.	51	50	.	.
PUBLIC/ SD03-1607	.	.	.	51	48	.	.
PUBLIC/ SD02-906	.	.	.	49	51	.	.
PUBLIC/ SD02-22	.	.	.	.	.	54	53
DAIRYLAND/ DSR-22/STSUL	.	.	.	.	.	51	50
PUBLIC/ SD00-732	.	.	.	.	.	51	51
PUBLIC/ SD03-483	.	.	.	.	.	49	.
PUBLIC/ SD04CV-460	.	.	.	.	.	46	.
PUBLIC/ SD04CV-263	.	.	.	.	.	45	.
PUBLIC/ SD02-96	.	.	.	.	.	43	46
PUBLIC/ SD04CV-941	.	.	.	.	.	43	.
PUBLIC/ SD04CV-907	.	.	.	.	.	42	.
Test avg. :	.	56	46	53	50	47	50
High avg. :	.	59	47	56	51	54	53
Low avg. :	.	54	43	49	48	42	46
# LSD (.05) :	.	NS	NS	3	NS	5	NS
## TPG-avg. :	.	54	43	53	48	49	46
@ Coef. Var. :	.	3	4		6	6	7
No. Entries :	26	9	4	3	3	9	4

* DTM= days to maturity when seeded May 21, 2007; data is missing due to an early frost

LSD (.05)= amount values in a column must differ to be significantly different or if differences are non-significant

TPG-avg. = minimum value to qualify for top performance group

@ Coef. Var.= a measure of trial experimental error, 15% or less is best

Table 9b. Non-Roundup Ready™ maturity group-0, -I & -II soybean variety protein, oil, and lodging score averages- Brookings, South Dakota, 2007

Brand/Variety (By maturity group & protein)	Average DTM*	2007 Averages by Maturity Group								
		MG-0			MG-I			MG-II		
		Protein (%)	Oil (%)	Lodging* (1-5)	Protein (%)	Oil (%)	Lodging* (1-5)	Protein (%)	Oil (%)	Lodging* (1-5)
PUBLIC/ SURGE	.	38.5	19.3	1	.	.	.	.	.	.
PUBLIC/ HAMLIN	.	38.0	19.2	1	.	.	.	.	.	.
PUBLIC/ SD04CV-405	.	37.7	19.0	1	.	.	.	.	.	.
PUBLIC/ SD04CV-534	.	37.4	19.8	1	.	.	.	.	.	.
PUBLIC/ SD04CV-519	.	37.2	19.0	1	.	.	.	.	.	.
PUBLIC/ SD03-2327	.	36.6	20.1	1	.	.	.	.	.	.
PUBLIC/ SD03-2154	.	36.5	19.8	1	.	.	.	.	.	.
PUBLIC/ SHEYENNE	.	36.1	19.3	1	.	.	.	.	.	.
PUBLIC/ SD02-1138	.	35.1	20.2	1	.	.	.	.	.	.
PUBLIC/ SD04CV-620	.	.	.	.	39.6	19.7	1	.	.	.
PUBLIC/ SD03-1537	.	.	.	.	38.0	19.9	1	.	.	.
PUBLIC/ SD02-906	.	.	.	.	37.8	19.7	1	.	.	.
PUBLIC/ SD02-833	.	.	.	.	37.2	19.7	1	.	.	.
PUBLIC/ SD03-1607	.	.	.	.	37.0	20.1	1	.	.	.
PUBLIC/ SD02-911	.	.	.	.	36.9	19.8	1	.	.	.
PUBLIC/ SD04CV-254	.	.	.	.	36.6	19.8	1	.	.	.
PUBLIC/ SD04CV-277	.	.	.	.	36.5	20.0	1	.	.	.
PUBLIC/ SD03-483	.	.	.	.	.	.	.	38.7	19.0	1
PUBLIC/ SD04CV-907	.	.	.	.	.	.	.	38.4	18.5	1
PUBLIC/ SD00-732	.	.	.	.	.	.	.	38.3	19.4	1
PUBLIC/ SD04CV-460	.	.	.	.	.	.	.	37.8	19.4	1
PUBLIC/ SD02-96	.	.	.	.	.	.	.	37.4	19.5	1
DAIRYLAND/ DSR-22/STSUL	.	.	.	.	.	.	.	36.8	19.5	1
PUBLIC/ SD04CV-941	.	.	.	.	.	.	.	36.5	17.7	1
PUBLIC/ SD02-22	.	.	.	.	.	.	.	36.5	19.1	1
PUBLIC/ SD04CV-263	.	.	.	.	.	.	.	35.9	19.3	1
Test avg. :	.	37.0	19.5	1	37.4	19.8	1	37.4	19.1	1
High avg. :	.	38.5	20.2	1	39.6	20.1	1	38.7	19.5	1
Low avg. :	.	35.1	19.0	1	36.5	19.7	1	35.9	17.7	1
# LSD (.05) :		0.9	0.3	NS	1.1	NS	NS	0.8	0.7	NS
## TPG-avg. :		37.7	20.0	1	38.6	19.7	1	38.0	18.9	1
@ Coef. Var. :		1	1	0	2	1	0	1	2	0
No. Entries :		9	9	9	8	8	8	9	9	9

* DTM= days to maturity when seeded May 21, 2007; a missing value indicates the site received a hard frost before the variety reached maturity

** Lodging, 1= all plants erect, 5= all plant flat

LSD(.05)= amount values in a column must differ to be significantly different or if they were non-significant (NS)

TPG-avg. = minimum value to qualify for top performance group

@ Coef. Var.= a measure of trial experimental error, 15% or less is best

Table 10a. Non-Roundup Ready™ maturity group-I & -II soybean variety yield averges-Beresford, South Dakota, 2006-2007

Brand/Variety (By maturity group & 2007 yield)	Average DTM*	Averages by Maturity Group			
		MG-I		MG-II	
		Bu/Acre 2007	Bu/Acre 2-Yr	Bu/Acre 2007	Bu/Acre 2-Yr
PUBLIC/ SD03-1607	107	43	51	.	.
PUBLIC/ SD04CV-254	108	42	.	.	.
PUBLIC/ SD02-906	108	42	50	.	.
PUBLIC/ SD02-911	108	42	.	.	.
PUBLIC/ SD03-1537	105	42	.	.	.
PUBLIC/ SD04CV-620	109	41	.	.	.
PUBLIC/ SD02-833	106	40	.	.	.
PUBLIC/ SD04CV-277	110	37	.	.	.
PUBLIC/ SD00-732	108	.	.	49	55
DAIRYLAND/ DSR-22/STSUL	111	.	.	47	54
PUBLIC/ SD02-22	111	.	.	45	54
PUBLIC/ SD02-96	111	.	.	45	51
PUBLIC/ SD04CV-263	110	.	.	44	.
PUBLIC/ SD03-483	111	.	.	44	.
PUBLIC/ SD04CV-907	113	.	.	43	.
PUBLIC/ SD04CV-460	115	.	.	42	.
PUBLIC/ SD04CV-941	112	.	.	41	.
Test avg. :	109	41	51	44	54
High avg. :	115	43	51	49	55
Low avg. :	105	37	50	41	51
# LSD (.05) :		NS	NS	NS	NS
## TPG-avg. :		37	50	41	51
@ Coef. Var. :		11	10	6	6
No. Entries :	17	8	2	9	4

* DTM= average days from seeding on June 9, 2007 to maturity

LSD (.05)= amount values in a column must differ to be significantly different or if differences are non-significant (NS)

TPG-avg. = minimum value to qualify for top performance group

@ Coef. Var.= a measure of trial experimental error, 15% or less is best

Table 10b. Non-Roundup Ready™ maturity group-I & -II soybean variety protein, oil, and lodging score averages- Beresford, South Dakota, 2007

Brand/Variety (By maturity group & protein)	Average DTM*	2007 Averages by Maturity Group					
		MG-I			MG-II		
		Protein %	Oil %	Lodging* (1-5)	Protein %	Oil %	Lodging* (1-5)
PUBLIC/ SD04CV-620	.	37.0	20.3	2	.	.	.
PUBLIC/ SD02-833	.	35.3	20.2	2	.	.	.
PUBLIC/ SD03-1607	.	35.0	20.5	1	.	.	.
PUBLIC/ SD02-911	.	34.9	20.4	1	.	.	.
PUBLIC/ SD03-1537	.	34.8	20.2	2	.	.	.
PUBLIC/ SD02-906	.	34.7	20.9	1	.	.	.
PUBLIC/ SD04CV-254	.	34.3	20.0	1	.	.	.
PUBLIC/ SD04CV-277	.	33.6	20.9	1	.	.	.
PUBLIC/ SD03-483	.	.	.	.	37.3	19.9	1
PUBLIC/ SD04CV-907	.	.	.	.	36.9	19.8	1
PUBLIC/ SD02-96	.	.	.	.	36.0	20.6	1
PUBLIC/ SD00-732	.	.	.	.	35.9	20.4	1
PUBLIC/ SD04CV-460	.	.	.	.	35.5	19.7	1
PUBLIC/ SD02-22	.	.	.	.	35.2	19.6	1
DAIRYLAND/ DSR-22/STSUL	.	.	.	.	34.2	19.8	1
PUBLIC/ SD04CV-941	.	.	.	.	34.2	18.5	2
PUBLIC/ SD04CV-263	.	.	.	.	33.4	20.4	1
Test avg. :	.	35.0	20.4	1	35.4	19.9	1
High avg. :	.	37.0	20.9	2	37.3	20.6	2
Low avg. :	.	33.6	20.0	1	33.4	18.5	1
# LSD (.05) :		0.9	0.3	1	0.9	0.5	NS
## TPG-avg. :		36.2	20.7	1	36.5	20.2	2
@ Coef. Var. :		1	1	28	1	1	24
No. Entries :		8	8	8	9	9	9

* DTM= days to maturity when seeded June 9, 2007; a missing value indicates the site received a hard frost before the variety reached maturity

** Lodging, 1= all plants erect, 5= all plant flat

LSD(.05)= amount values in a column must differ to be significantly different or if they were non-significant (NS)

TPG-avg. = minimum value to qualify for top performance group

@ Coef. Var.= a measure of trial experimental error, 15% or less is best

Table F. Mailing addresses of entrants in the 2007 soybean trials.

Entrant name (brand name), mailing address
Coyote Seed Mills (Coyote), Inc., PO Box 16, Bridgewater, SD 57319-0016
Dairyland Seed Co., Inc. (Dairyland), PO Box 958, West Bend, WI 53095
Farm Advantage (Farm Advantage), 1275 Hwy 69, Belmont, IA 50421
Gold Country Seed Inc. (Gold Country Seed), 16506 Hwy 15 N., Hutchinson, MN 55350
Hefty Seed Co. (Hefty), 47504 252nd St., Baltic, SD 57003
Kaltenberg Seeds (Kaltenberg), 5506 State Rd 19, Box 278, Waunakee, WI 53597-0278
Kruger Seed Co. (Kruger), 33938 160th Ave.,PO Box A, Dike, IA 50624
Latham Seed Co. (Latham), 131 180th St, Alexander, IA 50420-8028
Monsanto (Asgrow), 102 West Carol Ave., Courtland, IL 60112
Mustang Seeds (Mustang), PO Box 466, Madison, SD 57042
Northstar Genetics (Northstar), 14602 50th St. SE, Leonard, ND 58052
Nutech Seed, LLC (Nutech), 40321 130th Ave., Leland, IA 50453
Prairie Brand Seed Co. (Praire Brand), 15 X Ave., Story City, IA 50248
Renk Seed Co. (Renk), 6809 Wilburn Rd., Sun Prairie, WI 53590
Roughrider Genetics (RG), 1735 NDSU Research Park Drive, Fargo, ND 58105
SDSU Soybean Breeding Program (Experimentals), Plant Science Dept, Brookings, SD 57007
Seeds 2000 (Seeds 2000), PO Box 200, Breckenridge, MN 56520
Sodak Genetics (Sodak), 1200 North Campus Dr., Brookings, SD 57007
Stine Seed Co.(Stine), 22555 Laredo Trail, Adel, IA 50003
Thunder Seed Inc. (Thunder), 3008 210th St. W., Hawley, MN 56549
Wensman Seed Co.(Wensman), PO Box 190, Wadena, MN 56482
Ziller Seed Co.Inc.(Ziller), 76374 380th St., Bird Island, MN 55310